1978 OLDSMOBILE
CHASSIS SERVICE MANUAL
ALL SERIES

IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all motor vehicles. The service procedures recommended by Oldsmobile and described in this service manual are effective methods of performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.

It is important to note that this manual contains various Warnings, and Cautions which should be carefully read in order to minimize the risk of personal injury to service personnel or the possibility that improper service methods will be followed which may damage the vehicle or render it unsafe. It also is important to understand that these Warnings, and Cautions are not exhaustive. Oldsmobile could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, Oldsmobile has not undertaken any such broad evaluation. Accordingly, anyone who uses a service procedure or tool which is not recommended by Oldsmobile must first satisfy himself thoroughly that neither his safety nor vehicle safety will be jeopardized by the service method he selects.

1978 OLDSMOBILE CHASSIS SERVICE MANUAL

FOREWORD

This manual provides information on diagnosis, chassis service procedures, adjustments, and specifications for 1978 Oldsmobiles. An understanding of the material contained herein and in monthly issues of the Oldsmobile Service Guild and Dealer Technical and Information Bulletins, issued when necessary, will assist service personnel in properly maintaining the quality to which Oldsmobile cars are built.

Diagnosis of all units and systems are alphabetically listed under DIAGNOSIS in the yellow pages at the back of this manual.

A separate Manual, the 1978 Body Service Manual, contains body service information on all series and models used in 1978.

All information, illustrations and specifications contained in this Manual are based on the latest product information available at the time of publication approval. The right is reserved to make changes at any time without notice.

CAUTION

1978 Oldsmobiles contain many parts dimensioned in the metric system as well as in the customary system. Many fasteners are metric and are very close in dimension to familiar customary fasteners in the inch system. It is important to note that, during any maintenance procedures, replacement fasteners must have the same measurements and strength as those removed, whether metric or customary. (Numbers on the heads of metric bolts and on surfaces of metric nuts indicate their strength. Customary bolts use radial lines for this purpose, while most customary nuts do not have strength markings.) Mismatched or incorrect fasteners can result in vehicle damage or malfunction, or possibly personal injury. therefore, fasteners removed from the car should be saved for re-use in the same locations whenever possible. Where the fasteners are not satisfactory for re-use, care should be taken to select a replacement that matches the original. For information and assistance, see your Oldsmobile dealer.

PRICE: TEN DOLLARS AND FIFTY CENTS

SERVICE DEPARTMENT
OLDSMOBILE DIVISION

GENERAL MOTORS CORPORATION
LANSING, MICHIGAN

ALL SERIES

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SECTION 0A

GENERAL INFORMATION

INDEX

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IDENTIFICATION

BODY IDENTIFICATION

The 88, 98 and Toronado series and body style identification plate (Fig. 0A-1) is mounted on the left upper cowl. The Cutlass plate is mounted on the left upper cowl. (Figs. 0A-1 & 0A-2) The plate is mounted on the left forward side of the Omega cowl. The Starfire plate is mounted on the middle top of the cowl.

Information on this plate shows:

1. Model Year, Series, and Style Number.
2. Body Number
3. Trim Number
4. Paint Number (Color Specification)
5. Time Built Code

The series and body style are identified as follows:

EXAMPLE: 3 CV 37

- 37 — Luxury Coupe (Style)
- CV — Ninety-Eight (Series)
- 3 — G.M. Division (Oldsmobile)

All Fisher Body numbers are prefixed by letters indicating the plant where the body was assembled.

Starfire bodies are coded as follows:

L–Lordstown

Omega bodies are coded as follows:

W–Willow Run

Cutlass bodies are coded as follows:

LAN–Lansing (Exc. Wagon) D–Doraville
R–Arlington G–Framingham
ST–Ste. Therese

All 88 bodies are coded as follows:

LAN–Lansing (Exc. Wagon) X–Fairfax
C–Southgate

All 98 bodies are coded as follows:

LAN–Lansing E–Linden

All Toronado Series will be assembled at Lansing, Michigan and have code letters "LAN" for Body Unit Number(s) prefix.

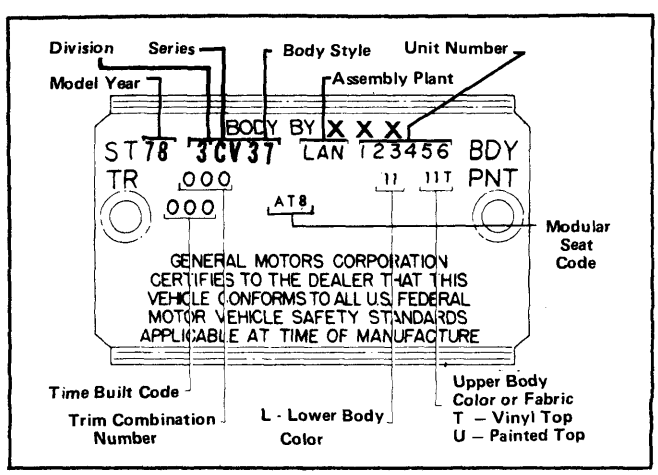

Fig. 0A-1–Body Style Identification Plate (All except Cutlass Models Built at Ste. Therese)

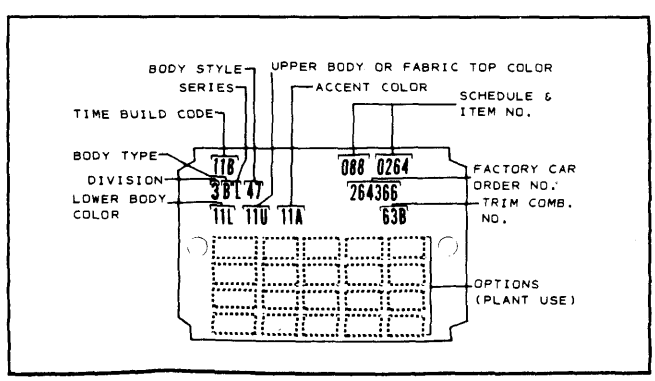

Fig. 0A-2–Body Style Identification Plate (Cutlass Models Built at Ste. Therese)

ENGINE IDENTIFICATION

The chart in Fig. 0A-3 shows engine usage and identification. All engines will be identified by litre and cubic inch displacement, as well as the engine code letter on the Vehicle Identification Number plate attached to the car. Refer to Figs. 0A-3 and 0A-4 for detailed "VIN" code information.

	2.5 LITRE (151) 2 BBL. L-4 LX6 (VIN V), LS6 (VIN 1)						3.8 LITRE (231) 2 BBL. V-6 (LD5 (VIN A)						4.3 LITRE (260) 2 BBL. V-8 LV8 (VIN F)						5.0 LITRE (305) 2 BBL. V-8 LG3 (VIN U)						5.0 LITRE (305) 4 BBL. V-8 LG4 (VIN H)					
	Exc. Calif. & Hi. Alt.		Calif. (LS6)		High Altitude		Exc. Calif. & Hi. Alt.		Calif.		High Altitude		Exc. Calif. & Hi. Alt.		Calif.		High Altitude		Exc. Calif. & Hi. Alt.		Calif.		High Altitude		Exc. Calif. & Hi. Alt.		Calif.		High Altitude	
SERIES	M.T.	A.T.	M.T.	A.T.	M.T.	A.T.	M.T.	A.T.	M.T.	A.T.	M.T.	A.T.	M.T.	A.T.	M.T.	A.T.	M.T.	A.T.	M.T.	A.T.	M.T.	A.T.	M.T.	A.T.	M.T.	A.T.	M.T.	A.T.	M.T.	A.T.
Starfire	S	O		S			O	O	O	O	O	O							O	O		O		O						
Starfire SX	S	O		S			O	O	O	O	O	O							O	O		O		O						
Omega							S	O		S		S							O	O										
Omega Brougham							S	O		S		S							O	O										
Cutlass Salon							S	O		S		S	O	O		O		O	O			O		O				O		
Cutlass Salon Brougham							S	O		S		S	O	O		O		O	O			O		O				O		
Cutlass Supreme							S	O		S		S	O	O		O		O	O			O		O				O		
Cutlass Calais							S	O		S		S	O	O		O		O	O			O		O				O		
Cutlass Supreme Brougham							S	O		S		S	O	O		O		O	O			O		O				O		
Cutlass Cruiser							S	O		S		S	O	O		O		O	O			O		O				O		
Delta 88								S		S		S		O																
Delta 88 Royale								S		S		S		O																

	5.7 LITRE (350) 4 BBL. V-8 LM1 (VIN L)			5.7 LITRE (350) DIESEL V-8 LF9 (VIN N)			5.7 LITRE (350) 4 BBL. V-8 L34 (VIN R)			6.6 LITRE (403) 4 BBL. V-8 L80 (VIN K)		
SERIES	Exc. Calif. & Hi. Alt.	Calif.	High Altitude	Exc. Calif. & Hi. Alt.	Calif.	High Altitude	Exc. Calif. & Hi. Alt.	Calif.	High Altitude	Exc. Calif. & Hi. Alt.	Calif.	High Altitude
Omega		O	O									
Omega Brougham		O	O									
Cutlass Salon												
Cutlass Salon Brougham												
Cutlass Supreme												
Cutlass Calais												
Cutlass Supreme Brougham												
Cutlass Cruiser			O									
Delta 88				O	O	O	O	O	O	O	O	O
Delta 88 Royale				O	O	O	O	O	O	O	O	O
Custom Cruiser				O	O		S	S	S	O	O	O
Ninety-Eight				O	O	O	S	S	S	O	O	O
Toronado										S	S	S

Fig. 0A-3—Engine Identification Chart

3K 47H8M506334

VEHICLE IDENTIFICATION NUMBERS

3V37K8M100001

- DIVISIONAL CODE (OLDS)
- MODEL YEAR (1978)
- PLANT SEQUENTIAL NUMBER

SERIES CODE

NAME	SERIES	SALES & VIN CODE
STARFIRE SX	HD	D
STARFIRE	HT	T
OMEGA	XB	B
OMEGA BROUGHAM	XE	E
CUTLASS SALON	AG	G
CUTLASS CRUISER	AH	H
CUTLASS SALON BROUGHAM	AJ	J
CUTLASS SUPREME	AR	R
CUTLASS CALAIS	AR	K
CUTLASS SUPREME BROUGHAM	AM	M
DELTA 88	BL	L
DELTA 88 ROYALE	BN	N
CUSTOM CRUISER	BQ	Q
NINETY-EIGHT LUXURY	CV	V
NINETY-EIGHT REGENCY	CX	X
TORONADO BROUGHAM	EZ	Z

BODY TYPE CODE

BODY TYPE	BODY VIN CODE
COUPE	07
HATCHBACK COUPE	17
COUPE	27
SEDAN	69
SEDAN	09
STATION WAGON—2-SEAT	35
COUPE (CUTLASS SUPREME, CUTLASS CALAIS & CUTLASS SUPREME BROUGHAM)	47
COUPE (CUTLASS SALON & CUTLASS SALON BROUGHAM)	87
STATION WAGON—2-SEAT	35
COUPE	37
SEDAN	69
BROUGHAM COUPE	57

ENGINE CODE

ENGINE DESCRIPTION		ENGINE OPTION	ENGINE VIN CODE
2.5 LITRE (151) 2 BBL.	L-4 (2)	LX6	V
2.5 LITRE (151) 2 BBL.	L-4 (2)	LS6	1
3.8 LITRE (231) 2 BBL.	V-6 (4)	LD5	A
5.0 LITRE (305) 2 BBL.	V-8 (1)	LG3	U
3.8 LITRE (231) 2 BBL.	V-6 (4)	LD5	A
5.0 LITRE (305) 2 BBL.	V-8 (1)	LG3	U
5.7 LITRE (350) 4 BBL.	V-8 (1)	LM1	L
3.8 LITRE (231) 2 BBL.	V-6 (4)	LD5	A
4.3 LITRE (260) 2 BBL.	V-8 (3)	LV8	F
5.0 LITRE (305) 2 BBL.	V-8 (1)	LG3	U
5.0 LITRE (305) 4 BBL.	V-8 (1)	LG4	H
5.7 LITRE (350) 4 BBL.	V-8 (1)	LM1	L
3.8 LITRE (231) 2 BBL.	V-6 (4)	LD5	A
4.3 LITRE (260) 2 BBL.	V-8 (3)	LV8	F
5.7 LITRE (350) DIESEL	V-8 (3)	LF9	N
5.7 LITRE (350) 4 BBL.	V-8 (3)	L34	R
6.6 LITRE (403) 4 BBL.	V-8 (3)	L80	K
6.6 LITRE (403) 4 BBL.	V-8 (3)	L80	K

PLANT CODE

PLANT CODE	PLANT	STARTING VIN
U	LORDSTOWN, OHIO	300001
W	WILLOW RUN, MICHIGAN	100001
M	LANSING, MICHIGAN	400001
R	ARLINGTON, TEXAS	400001
D	DORAVILLE, GEORGIA	400001
G	FRAMINGHAM, MASS.	400001
2	STE. THERESE, QUEBEC	400001
M	LANSING, MICHIGAN	100001
E	LINDEN, NEW JERSEY	100001
X	FAIRFAX, KANSAS	100001
C	SOUTHGATE, CALIFORNIA	100001
M	LANSING, MICHIGAN	700001

(1) PRODUCED BY GM—CHEVROLET MOTOR DIVISION
(2) PRODUCED BY GM—PONTIAC MOTOR DIVISION
(3) PRODUCED BY GM—OLDSMOBILE DIVISION
(4) PRODUCED BY GM—BUICK MOTOR DIVISION

Fig. 0A-4—Vehicle Identification Chart

SERIES	SERIES & STYLE CODE	BODY STYLE
STARFIRE	T07	COUPE
STARFIRE SX	D07	SX COUPE
OMEGA	B17 B27 B69	HATCHBACK COUPE COUPE SEDAN
OMEGA BROUGHAM	E27 E69	COUPE SEDAN
CUTLASS SALON	G09 G87	SEDAN COUPE
CUTLASS SALON BROUGHAM	J09 J87	SEDAN COUPE
CUTLASS SUPREME	R47	COUPE
CUTLASS CALAIS	K47	COUPE
CUTLASS SUPREME BROUGHAM	M47	COUPE
CUTLASS CRUISER	H35	2-SEAT WAGON
DELTA 88	L37 L69	COUPE SEDAN
DELTA 88 ROYALE	N37 N69	COUPE SEDAN
CUSTOM CRUISER	Q35	2-SEAT WAGON
NINETY-EIGHT LUXURY	V37 V69	COUPE SEDAN
NINETY-EIGHT REGENCY	X37 X69	COUPE SEDAN
TORONADO	Z57	BROUGHAM COUPE

Fig. 0A-5–1978 Model Chart

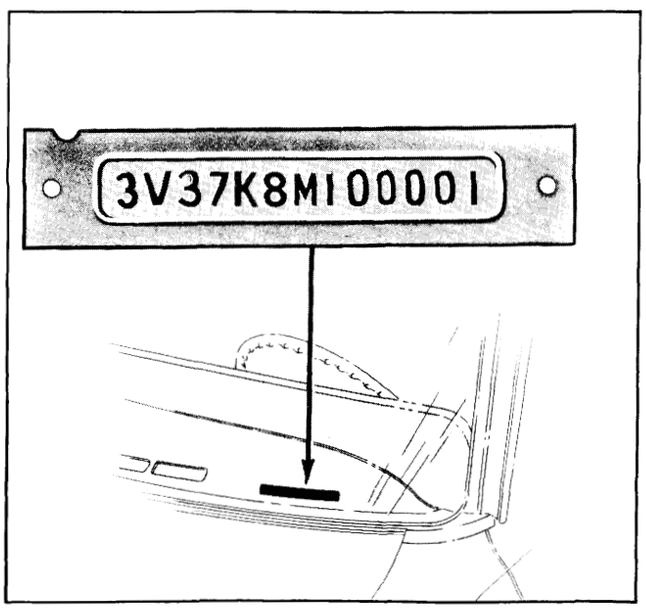

Fig. 0A-6–Vehicle Identification Number Plate

The 2.5 Litre (151) L-4 (VIN V or 1) engine unit number location is shown in Fig. 0A-7. The 5.0 Liter (305) (VIN U & H) and 5.7 Litre (350) (VIN L) are identified on a pad at the front right hand side of the cylinder block.

The 4.3 Litre (260) (VIN F), 5.7 Litre (350) (VIN N & R) and the 6.6 Litre (403) (VIN K) engines are identified by code tapes installed as shown in Fig. 0A-8.

The 3.8 Litre (231) (VIN A) engine is identified in Fig. 0A-9. A code letter tape is also on the front of the left valve cover as many times the other location is visually blocked by engine accessories.

MODEL IDENTIFICATION

The 1978 models (series) and body style are identified in Fig. 0A-5.

VEHICLE IDENTIFICATION PLATE

The 1978 vehicle identification plate is located in the left upper instrument panel. The plate is visible from outside of the car. (Fig. 0A-6) Each unit number is prefixed by letters and numbers and have designations as shown in Fig. 0A-4.

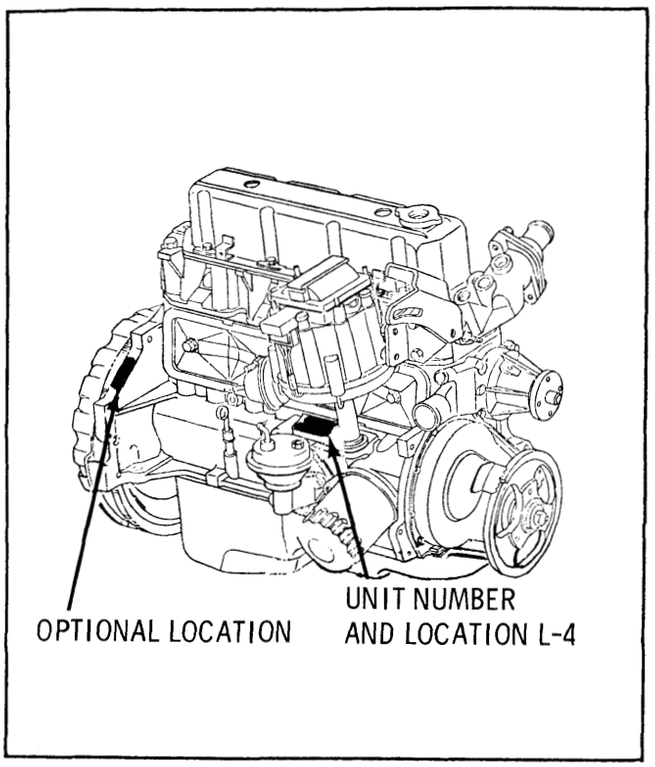

Fig. 0A-7–Unit Number Location (VIN V & VIN 1)

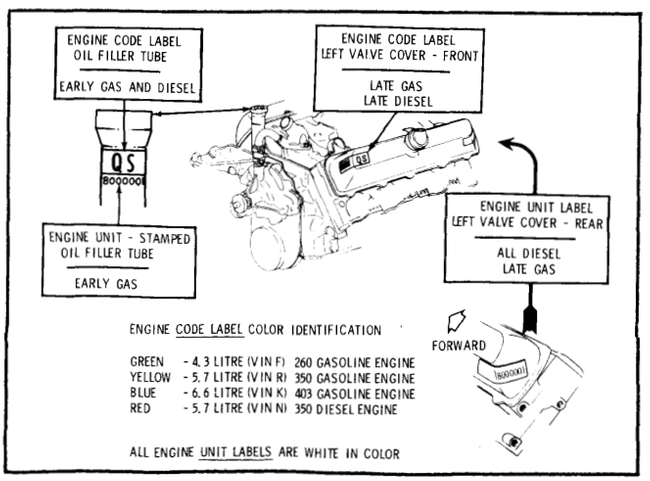

Fig. 0A-8–Engine Number Locations (VIN F, N, R & K)

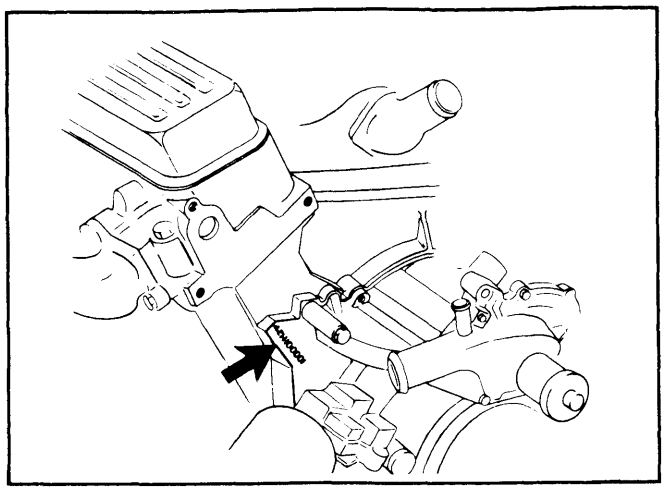

Fig. 0A-9—Engine Number and Code Letter Location (VIN A)

TRANSMISSIONS

MANUAL

Manual transmissions have 1 inch high identification code letters on the right-hand side of case. Fig. 0A-10 shows manual transmission identification.

TYPE & OPTION CODE	SERIES	TRANS. MODEL CODE*	ENGINE
M15 3-Speed M.T. (MM3)	Omega Cutlass	S9 RZ	LD5 3.8 (231) V-6 LD5 3.8 (231) V-6
M20 4-Speed M.T. (MM4)	Starfire Starfire Starfire Omega Cutlass	ZR ZR RH ZM S4	LX6 2.5 (151) L-4 LD5 3.8 (231) V-6 LG3 5.0 (305) V-8 LG3 5.0 (305) V-8 LG3 5.0 (305) V-8
M75 5-Speed M.T. (MM5)	Starfire Starfire Omega Cutlass Cutlass	RJ U6 U7 U7 RR	LX6 2.5 (151) L-4 LD5 3.8 (231) V-6 LD5 3.8 (231) V-6 LD5 3.8 (231) V-6 LV8 4.3 (260) V-8
* 1" HIGH LETTERS ON R.H. SIDE OF CASE			

Fig. 0A-10—Manual Transmission Identification

TURBO HYDRA-MATIC 350 TRANSMISSION

The chart in Fig. 0A-11 shows the Turbo Hydra-Matic 350 transmission usage. The transmission Model and Code Numbers are stamped on the governor cover as shown in Fig. 0A-12, or are stamped on the right vertical surface of the oil pan.

EXAMPLE: LA 021 D 78

- 78 — Model Year (1978)
- D — Shift Built
- 021 — Production Day Built
- LA — Model Code

TRANS. CODE AND MODEL	CAR SERIES	ENGINE			
KA● (350)	Starfire	LD5	3.8	(231)	V-6
KL●● (350)	Starfire	LD5	3.8	(231)	V-6
KC (350)	Omega	LD5	3.8	(231)	V-6
JC (350)	Omega	LG3	5.0	(305)	V-8
JC (350)	Omega	LG4	5.0	(305)	V-8
JC (350)	Cutlass	LG3	5.0	(305)	V-8
JC (350)	Cutlass	LG4	5.0	(305)	V-8
JD (350)	Omega	LM1	5.7	(350)	V-8
JD (350)	Cutlass	LM1	5.7	(350)	V-8
KE (350)	Cutlass	LD5	3.8	(231)	V-6
KE (350)	88	LD5	3.8	(231)	V-6
LD (350)	Cutlass	LV8	4.3	(260)	V-8
LD (350)	88	LV8	4.3	(260)	V-8
*LA (350)	88	L34	5.7	(350)	V-8
**LH (350)	88	L34	5.7	(350)	V-8
*LK† (350)	88	L80	6.6	(403)	V-8
*LC†† (350)	88	L80	6.6	(403)	V-8
**LE (350)	88	L80	6.6	(403)	V-8
LJ (350)	88 Wgn.	LF9	5.7	(350)	V-8
WC (350)	Starfire	LG3	5.0	(305)	V-8

● 2.56 Axle Ratio
●● 2.93 Axle Ratio
† 3.23 Axle Ratio
†† Exc. 3.23 Axle Ratio
* Exc. High Altitude
** High Altitude

Fig. 0A-11—Turbo Hydra-Matic 350 Usage Chart

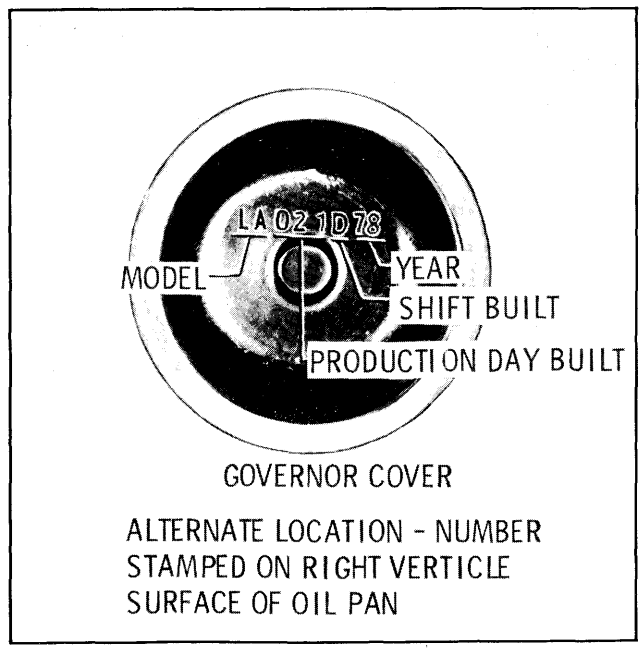

Fig. 0A-12—Turbo Hydra-Matic 350 Model Number Location

TURBO HYDRA-MATIC 200, 400, AND 425

The Turbo Hydra-Matic 200, 400, and 425 usage chart is shown in Fig. 0A-13. The serial number plate, Fig. 0A-14 is located on the right side of the case on the 200 and 400; the 425 serial number plate is located on the left side of the converter housing.

TRANS. CODE AND MODEL		CAR SERIES	ENGINE			
PY	(200)	Starfire	LX6	2.5	(151)	L-4
PY	(200)	Starfire	LS6	2.5	(151)	L-4
BZ	(200)	Cutlass	LD5	3.8	(231)	V-6
OW*	(200)	Cutlass	LV8	4.3	(260)	V-8
OR**	(200)	Cutlass	LV8	4.3	(260)	V-8
CO	(200)	Cutlass	LG3	5.0	(305)	V-8
CR	(200)	Cutlass	LG4	5.0	(305)	V-8
OT*	(200)	88 (Exc. Wgn.)	LF9	5.7	(350)	V-8
OT*	(200)	98	LF9	5.7	(350)	V-8
OX**	(200)	88 (Exc. Wgn.)	LF9	5.7	(350)	V-8
OX**	(200)	98	LF9	5.7	(350)	V-8
OB	(400)	98	L34	5.7	(350)	V-8
OD†	(400)	98	L80	6.6	(403)	V-8
OC††	(400)	98	L80	6.6	(403)	V-8
OJ	(425)	Toronado	L80	6.6	(403)	V-8

† 2.56 & 2.41 Axle Ratios
†† 3.08 & 3.23 Axle Ratios
* Exc. High Altitude
** High Altitude

Fig. 0A-13–Turbo Hydra-Matic 200, 400 & 425 Usage Chart

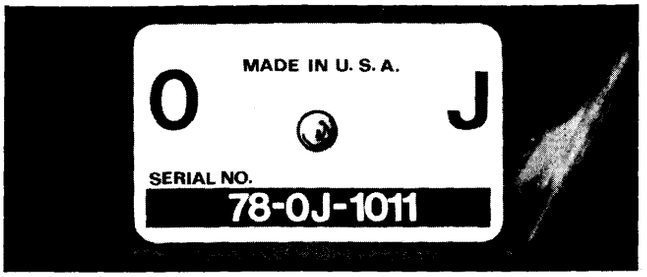

Fig. 0A-14–Turbo Hydra-Matic 200, 400 & 425 Serial Number Plate

DIFFERENTIAL RATIOS

The differential ratio code letters (1/4" high) are stamped either on the right front inboard side of the axle housing tube, (Fig. 0A-15); or are located on a metal tag attached to the seven o'clock cover bolt. (Fig. 0A-16)

Letters, for standard and Limited Slip differentials, indicating corresponding ratio for each series are shown in the chart. (Section 4B)

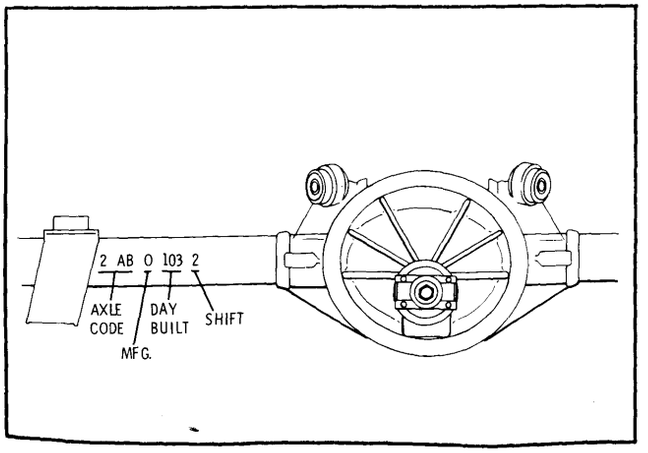

Fig. 0A-15–Axle Code Location (Exc. "B" Axles)

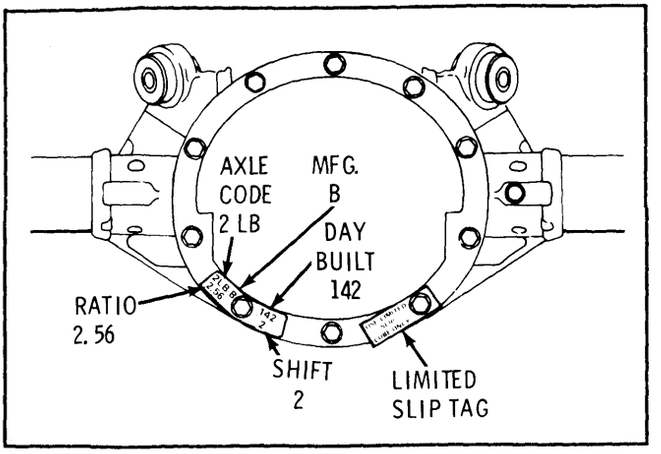

Fig. 0A-16–Axle Code Location ("B" Axles)

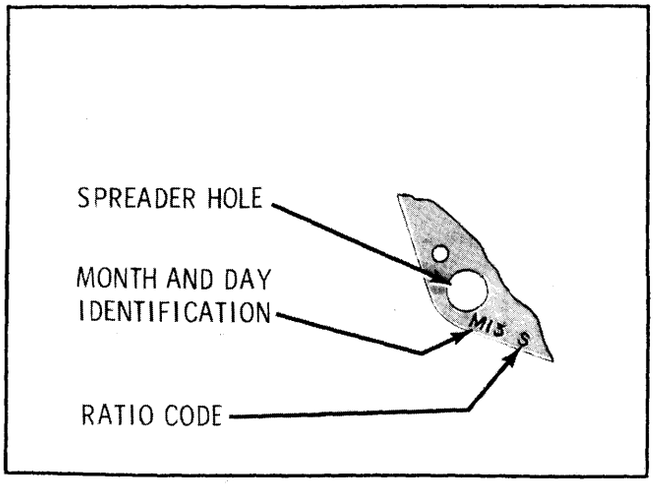

Fig. 0A-17–Final Drive Date and Ratio Code

FINAL DRIVE ASSEMBLY

The final drive assembly is available in two ratios, the 2.73:1 ratio is standard, while 3.07:1 is optional.

The ratio and date codes are stamped on the flange near the right hand spreader hole. (Fig. 0A-17)

DATE CODE: The code letter for month and number(s) for actual date.

EXAMPLE:
M13=Built December 13 (M=12th. letter, I is not used).

RATIO CODE: "S" = 2.73:1
"T" = 3.07:1

TIRE INFORMATION

A tire size, car load and inflation pressure placard is located on every car as follows:

STARFIRE and OMEGA
Rear of left front door

CUTLASS, 88, 98 and TORONADO
Inside the glove box door

SECTION 0B

EMISSION CONTROL SYSTEM MAINTENANCE AND LUBRICATION

INDEX

SUBJECT	PAGE
Body Lubrication	0B-12
Capacities	0B-16
Floor Hoist Lift Points	0B-14
Maintenance Schedule I	0B-4
Maintenance Schedule II	0B-5
Maintenance Schedule III (Diesel)	0B-6
Maintenance Schedule Explanation	0B-1 & 0B-10
Tire Rotation	0B-7
Wheel Lug Nut Torque	0B-3, 0B-7 & 0B-11

EXPLANATION OF COMPLETE MAINTENANCE SCHEDULES (EXC. DIESEL)

This is an explanation of each of the services listed in the complete Maintenance Schedules. Refer to Schedules I and II for maintenance interval. (Figs. 0B-3 and 0B-4) Letters and numbers on the schedules and on this explanation are for easy reference.

NORMAL USE OF CAR—The maintenance instructions in the maintenance schedule are based on the assumption that the car will be used as designed:

1. to carry passengers and cargo within the limitations indicated on the tire placard affixed to either the edge of the driver's door or the inside of the glove box door,
2. on reasonable road surfaces within legal operating limits,
3. on a daily basis, as a general rule, for at least several miles, and
4. on unleaded fuel.

Unusual operating conditions will require more frequent maintenance as specified in the respective sections. Service marked (*) are also required emission control maintenance and are not repeated under the subhead Emission Control Service.

SECTION A- LUBE AND GENERAL MAINTENANCE

SCHEDULE I SCHEDULE II

ITEM NO. AND SERVICES

A-1. CHASSIS—Lubricate all grease fittings in front suspension and steering linkage. Lubricate transmission shift linkage, hood latch, hood and door hinges. Lubricate parking brake cable guides, underbody contact points and linkage.

	No. Fittings
Tie Rods	4
Relay Rod (Exc. Toronado)	2
Idler Arm (Exc. Toronado)	1
Upper Ball Joints	2
Lower Ball Joints	2
Pitman & Idler Arm (Starfire)	2

A-2. FLUID LEVELS–Check level of fluid in brake master cylinder● power steering pump● battery, engine, axle, transmission and windshield washer●. Engine coolant should be checked for proper level and freeze protection to at least –35° F (–37° C) or to the lowest temperature expected during the period of vehicle operation. Proper engine coolant also provides corrosion protection.

Any significant fluid loss in any of these systems or units could mean that a malfunction is developing and corrective action should be taken immediately. A low fluid level in the brake master cylinder front reservoir could also be an indicator that the disc brake pads need replacing.

A-3. ENGINE OIL*–Change every 12 months or 7,500 miles (12 000 km) whichever occurs first under normal driving conditions or each 3 months or 3,000 miles (4 800 km) when the vehicle is operated under the following conditions: (a) driving in dusty conditions, (b) trailer pulling, (c) extensive idling or (d) short-trip operation at freezing temperatures (with engine not thoroughly warmed-up).

Fig. 0B-6 shows recommended oil viscosity for anticipated temperature range. When changing oil, consider the anticipated temperatures for the next 4 months. SAE 5W and 5W-20 oils are not recommended for sustained high speed driving. SAE 30 oils may be used at temperatures above 40° F (4° C). SAE 5W-30 is recommended for all seasons in cars normally operated in Canada.

The dipstick is marked "Full" and "Add". The oil level should be maintained neither going above the "Full" line nor under the "Add" line. The oil level should be checked at every refueling and oil added to maintain the proper level.

Use only "first line" oils which, according to the label on the can are (1) intended for service SE, and (2) pass car makers' tests (including General Motors Standard GM 6136-M). The majority of the suitable oils currently available are multi-viscosity. Non-detergent and other low quality oils are specifically not recommended. The use of proper engine oils and oil change intervals are the best assurance of continued reliability and performance from the engine.

The use of "break-in" oils, "tune-up" compounds, "friction-reducing" compounds, etc., are not recommended. However, there are additive supplements available that can be

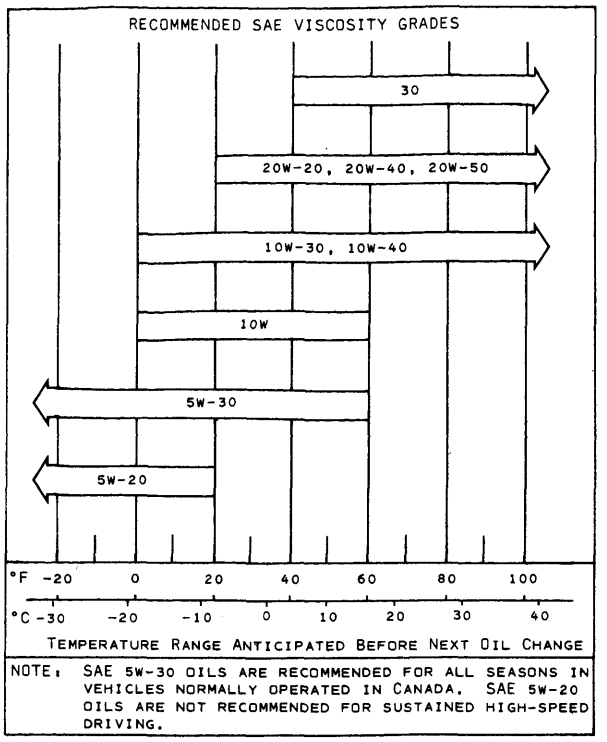

Fig. 0B-6–Oil Viscosity Chart (Gasoline)

SCHEDULE I GLOVE BOX MAINTENANCE SCHEDULE
SCHEDULE II GLOVE BOX MAINTENANCE SCHEDULE
SCHEDULE III GLOVE BOX MAINTENANCE SCHEDULE

Engine Family No. on Emission Label	Option	Engine			GM Engine Built By:	All Exc. Calif. & Hi Altitude	High Altitude	Calif.
		Displacement	VIN	Carb.				
820X2U	LX6	2.5 Litre (151)	V	2 Bbl.	Pontiac	II	*	*
820X6U	LS6	2.5 Litre (151)	1	2 Bbl.	Pontiac	*	*	II
840B2	LD5	3.8 Litre (231)	A	2 Bbl.	Buick	I	*	*
840E2LU	LD5	3.8 Litre (231)	A	2 Bbl.	Buick	*	II	II
830H2U	LV8	4.3 Litre (260)	F	2 Bbl.	Oldsmobile	II	*	*
830H2AU	LV8	4.3 Litre (260)	F	2 Bbl.	Oldsmobile	*	II	II
810Y2	LG3	5.0 Litre (305)	U	2 Bbl.	Chevrolet	I	*	*
810Y2V	LG3	5.0 Litre (305)	U	2 Bbl.	Chevrolet	*	I	I
810L4	LG4	5.0 Litre (305)	H	4 Bbl.	Chevrolet	I	*	*
810J4S	LM1	5.7 Litre (350)	L	4 Bbl.	Chevrolet	*	I	I
840J4U	L77	5.7 Litre (350)	X	4 Bbl.	Buick	II	*	*
830J9	LF9	5.7 Litre (350)	N	Diesel	Oldsmobile	III	*	III
830M4U	L34	5.7 Litre (350)	R	4 Bbl.	Oldsmobile	II	II	*
830M4AU	L34	5.7 Litre (350)	R	4 Bbl.	Oldsmobile	*	*	II
830M4U	L80	6.6 Litre (403)	K	4 Bbl.	Oldsmobile	II	II	*
830M4AU	L80	6.6 Litre (403)	K	4 Bbl.	Oldsmobile	*	*	II

* Engine Not Available In This Area

Fig. 0B-1–Car Designation for Maintenance Schedules

MAINTENANCE SERVICE SPECIFICATIONS

(Refer To Maintenance Schedule For Intervals)

WHEEL LUG NUT TORQUE

STARFIRE, OMEGA & CUTLASS	80 FT. LBS.
88 W/LD5, LV8, L34 or LF9	80 FT. LBS.
88 W/L80, CUSTOM CRUISER & 98	100 FT. LBS.
TORONADO	130 FT. LBS.

CARB. MTG. BOLT/NUT (New Gasket)	10-14 FT. LBS.
CARB. MTG. BOLT/NUT (Re-Torque)	8 FT. LBS.
SPARK PLUG TORQUE (w/o Tapered Seat)	25 FT. LBS.
SPARK PLUG TORQUE (w/Tapered Seat)	15 FT. LBS.

FLUIDS AND LUBRICANTS

Power steering system and pump reservoir	Power steering fluid 1050017 or equivalent
Rear Axle-Standard	SAE-80W or SAE-80W-90 GL5 (SAE-80W GL5 in Canada) or equivalent
Final Drive	Lubricant 1050081, 1050527 or equivalent
Rear Axle-Limited Slip	Lubricant 1052271, 1052272 or equivalent
Manual Steering Gear	Lubricant 1051052 or equivalent
Manual Transmission (Exc. 5-Speed)	SAE-80W or SAE-80W-90 GL-5 gear lubricant (SAE-80 GL5 in Canada) or equivalent
Brake system and master cylinder	Delco Supreme II Fluid, DOT-3 Fluid or equivalent
Clutch linkage (Man. Trans. only)	
a. Pivot points	Engine Oil
b. Push rod to clutch fork joint, and cross shaft	Chassis grease meeting requirements of GM 6031-M
Manual transmission shift linkage, column shift	Chassis Grease
Shift linkage, floor shift	Engine Oil
Hood Latch Assembly	
a. Pivots and spring anchor	Engine Oil
b. Release pawl	Chassis Grease
Hood and Door Hinges	Engine Oil
Automatic Transmission Shift Linkage	Engine Oil
Chassis Lubrication	Chassis grease meeting requirements of GM 6031-M
Automatic Transmission (and 5-Speed Man. Trans.)	DEXRON®-II D automatic transmission fluid or equivalent
Parking Brake Cables	Chassis Grease
Front Wheel Bearings (Rear on Toronado)	1051344 or equivalent
Lock Cylinders	WD-40 or equivalent spray lubricant
Body Door Hinge Pins, Station Wagon Tailgate Hinge and Linkage, Station Wagon Folding Seat, Fuel Door Hinge, Rear Compartment Lid Hinges	Engine Oil
Windshield Washer Solvent	1051515 or equivalent
Engine Coolant	(50/50 mixture of water and a high quality Ethylene Glycol base anti-freeze conforming to GM Spec. 1899-M
Engine Oil (Gasoline Engines)	"SE" Engine Oil conforming to GM Specs. GM 6136-M
Engine Oil (Diesel Engines)	"SE/CD" Engine Oil

FILTERS	TYPE (OR EQUIVALENT)
Engine Oil	VIN V, 1, U, H & L, PF25; VIN N, PF30; VIN A, PF40; VIN F, R & K, PF45
Carb. Air	VIN V, A615C; VIN 1, A643C; VIN A (Starfire) A169CW, (Omega & 88) A178CW, (Cutlass) A329C; VIN H, L & F, A348C; VIN U, A329C; VIN N, A644C; VIN R & K, A212CW
Breather Cap and Valve (Diesel)	VIN N, FB72
Canister-Emission Control	All Exc. Diesel-7026014
PCV Filter (In Air Cleaner)	VIN A, U, H & L, FB59
PCV Filter (In Valve Cover)	VIN F, R & K, FB56
Diesel Ventilation Filter (In Valve Covers)	VIN N, 557240
PCV Valve	VIN V & 1, CV795C; VIN A, CV770C; VIN U, H & L, CV774C; VIN F, CV787C; VIN R & K, CV679C
Flow Control Valve (Diesel)	VIN N, CV796
Carb. Fuel Inlet Filter	All 2BBL. (Exc. VIN F) GF470; All 4BBL. & VIN F 2 BBL. GF471
Diesel Fuel Filter	560355
Trans. Oil Filter	THM200, PF200; THM350 (exc. code 5WC), PF195; (Code 5WC), PF171; THM400, PF168; THM425, PF169

NOTE: For Engine Vehicle Identification Letters (VIN), see the Vehicle Identification Chart.

Fig. 0B-2–Maintenance Service Specifications

COMPLETE VEHICLE MAINTENANCE — SCHEDULE I

** WHEN TO PERFORM SERVICES (Months or Miles, Whichever Occurs First)	ITEM NO.	SERVICES (For Details, See Numbered Paragraphs)
SECTION A – LUBRICATION AND GENERAL MAINTENANCE		
Every 12 months or 7,500 miles (12 000 km)	A- 1	CHASSIS–Lubricate
	A- 2	•FLUID LEVELS–Check
	A- 3	*ENGINE OIL–Change
	A- 4	*ENGINE OIL FILTER–Replace
See Explanation of Maintenance Schedule	A- 5	TIRES–Rotate, Steel Belted Radial (Bias-belted every 7,500)
	A- 6	REAR AXLE–Change lube
Every 12 months or 15,000 miles (24 000 km)	A- 7	*COOLING SYSTEM–See Explanation of Maintenance Schedule
Every 30,000 miles (48 000 km)	A- 8	FRONT WHEEL BEARINGS–Clean and repack
	A- 9	MANUAL STEERING GEAR–Check seals
	A-10	CLUTCH CROSS SHAFT–Lubricate
Every 60,000 miles (96 000 km)	A-11	AUTOMATIC TRANSMISSION–Change fluid and service filter
SECTION B – SAFETY MAINTENANCE		
Every 12 months or 7,500 miles (12 000 km)	B- 1	OWNER SAFETY CHECKS–See Explanation of Maintenance Schedule
	B- 2	TIRES, WHEELS AND DISC BRAKES–Check condition
	B- 3	*EXHAUST SYSTEM–Check condition
	B- 4	SUSPENSION & STEERING SYSTEM–Check condition
	B- 5	BRAKES AND POWER STEERING–Check all lines and hoses
Every 12 months or 15,000 miles (24 000 km)	B- 6	*DRIVE BELTS–Check condition and adjustment
	B- 7	DRUM BRAKES AND PARKING BRAKE–Check condition of linings; adjust parking brake
	B- 8	THROTTLE LINKAGE–Check operation and condition
	B- 9	UNDERBODY–Flush and check condition
	B-10	BUMPERS–Check condition
SECTION C – EMISSION CONTROL MAINTENANCE		
At 1st 6 months or 7,500 miles (12 000 km)–then at 18 month/ 22,500 mile (36 000 km) intervals thereafter	C- 1	THERMOSTATICALLY CONTROLLED AIR CLEANER–Check operation
	C- 2	CARBURETOR CHOKE–Check operation
	C- 3	ENGINE IDLE SPEED–Check adjustment
	C- 4	EFE SYSTEM–Check operation
	C- 5	CARBURETOR–Torque attaching bolts or nuts to manifold
	C- 6	VACUUM ADVANCE SYSTEM AND HOSES–Check operation
Every 12 months or 15,000 miles (24 000 km)	C- 7	CARBURETOR FUEL INLET FILTER–Replace
	C- 8	PCV SYSTEM–See Explanation of Maintenance Schedule
Every 15,000 miles (24 000 km)	C- 9	OXYGEN SENSOR (If equipped)–Change
Every 22,500 miles (36 000 km)	C-10	VACUUM DIFFERENTIAL VALVE AND DIFFERENTIAL VACUUM DELAY AND SEPARATOR VALVE
	C-11	SPARK PLUG AND IGNITION COIL WIRES–Inspect and clean
	C-12	IDLE STOP SOLENOID AND/OR DASHPOT–Check operation
	C-13	SPARK PLUGS–Replace
	C-14	ENGINE TIMING ADJUSTMENT AND DISTRIBUTOR CHECK
	C-15	CARBURETOR VACUUM BREAK ADJUSTMENT (Engine VIN — H, L & U)
Every 24 months or 30,000 miles (48 000 km)	C-16	ECS SYSTEM–See Explanation of Maintenance Schedule
	C-17	FUEL CAP, TANK AND LINES–Check condition
Every 30,000 miles (48 000 km)	C-18	AIR CLEANER ELEMENT–Replace

• Also a Safety Service
* Also an Emission Control Service

** See Chart (Fig. 0B-1) for engines that apply to this Schedule

Fig. 0B-3–Complete Maintenance – Schedule I

COMPLETE VEHICLE MAINTENANCE – SCHEDULE II

** WHEN TO PERFORM SERVICES (Months or Miles, Whichever Occurs First)	ITEM NO.	SERVICES (For Details, See Numbered Paragraphs)
SECTION A – LUBRICATION AND GENERAL MAINTENANCE		
Every 12 months or 7,500 miles (12 000 km)	A- 1	CHASSIS–Lubricate
	A- 2	•FLUID LEVELS–Check
	A- 3	*ENGINE OIL–Change
	A- 4	*ENGINE OIL FILTER–Replace
See Explanation of Maintenance Schedule	A- 5	TIRES–Rotate, Steel Belted Radial (Bias-belted every 7,500)
	A- 6	REAR AXLE or TORONADO FINAL DRIVE–Change lube
Every 12 months or 15,000 miles (24 000 km)	A- 7	*COOLING SYSTEM–See Explanation of Maintenance Schedule
Every 30,000 miles (48 000 km)	A- 8	FRONT WHEEL BEARINGS–(Toronado rear)–Clean and repack
	A- 9	FINAL DRIVE BOOTS AND SEALS (Toronado)–Check condition
	A-10	MANUAL STEERING GEAR–Check seals
	A-11	CLUTCH CROSS SHAFT–Lubricate
Every 60,000 miles (96 000 km)	A-12	AUTOMATIC TRANSMISSION–Change fluid and service filter
SECTION B – SAFETY MAINTENANCE		
Every 12 months or 7,500 miles (12 000 km)	B- 1	OWNER SAFETY CHECKS–See Explanation of Maintenance Schedule
	B- 2	TIRES, WHEELS AND DISC BRAKES–Check condition
	B- 3	*EXHAUST SYSTEM–Check condition
	B- 4	SUSPENSION & STEERING SYSTEM–Check condition
	B- 5	BRAKES AND POWER STEERING–Check all lines and hoses
Every 12 months or 15,000 miles (24 000 km)	B- 6	*DRIVE BELTS–Check condition and adjustment
	B- 7	DRUM BRAKES AND PARKING BRAKE–Check condition of linings; adjust parking brake
	B- 8	THROTTLE LINKAGE–Check operation and condition
	B- 9	UNDERBODY–Flush and check condition
	B-10	BUMPERS–Check condition
SECTION C – EMISSION CONTROL MAINTENANCE		
See Explanation of Schedule	C- 1	CARBURETOR CHOKE–Check operation
At 1st 6 months or 7,500 miles (12 000 km)–then at 24 month/ 30,000 mile (48 000 km) intervals thereafter	C- 2	THERMOSTATICALLY CONTROLLED AIR CLEANER–Check operation
	C- 3	ENGINE IDLE SPEED–Check adjustment
	C- 4	EFE SYSTEM–Check operation
	C- 5	CARBURETOR–Torque attaching bolts or nuts to manifold
Every 12 months or 15,000 miles (24 000 km)	C- 6	VACUUM ADVANCE SYSTEM AND HOSES–Check operation
	C- 7	CARBURETOR FUEL INLET FILTER–Replace
	C- 8	PCV SYSTEM–See Explanation of Maintenance Schedule
Every 15,000 miles (24 000 km)	C- 9	OXYGEN SENSOR (If equipped)–Change
	C-10	SPARK PLUG AND IGNITION COIL WIRES–Inspect and clean
Every 30,000 miles (48 000 km)	C-11	VACUUM DIFFERENTIAL VALVE AND DIFFERENTIAL VACUUM DELAY AND SEPARATOR VALVE
	C-12	IDLE STOP SOLENOID AND/OR DASHPOT–Check operation
	C-13	SPARK PLUGS–Replace
	C-14	ENGINE TIMING ADJUSTMENT AND DISTRIBUTOR CHECK
	C-15	†AIR CLEANER ELEMENT–Replace
	C-16	CARBURETOR VACUUM BREAK–Check
Every 24 months or 30,000 miles (48 000 km)	C-17	ECS SYSTEM–See Explanation of Maintenance Schedule
	C-18	FUEL CAP, TANK AND LINES–Check condition

• Also a Safety Service
* Also an Emission Control Service
† On L-4 engine, replace air cleaner assembly every 50,000 miles

** See Chart (Fig. 0B-1) for engines that apply to this Schedule

Fig. 0B-4–Complete Maintenance – Schedule II

COMPLETE VEHICLE MAINTENANCE – SCHEDULE III
DIESEL

** WHEN TO PERFORM SERVICES (Months or Miles, Whichever Occurs First)	ITEM NO.	SERVICES (For Details, See Numbered Paragraphs)
SECTION A – LUBRICATION AND GENERAL MAINTENANCE		
Every 3,000 Miles (4 800 km)	A- 1	*ENGINE OIL–Change
	A- 2	*OIL FILTER–Change
Every 12 months or 9,000 miles (14 400 km)	A- 3	CHASSIS–Lubricate
	A- 4	• FLUID LEVELS–Check
	A- 5	TIRES–Rotation
See Explanation	A- 6	REAR AXLE–Change lube
Every 12 months or 15,000 miles (24 000 km)	A- 7	*COOLING SYSTEM–Check
Every 30,000 miles (48 000 km)	A- 8	WHEEL BEARINGS–Repack
Every 60,000 miles (96 000 km)	A- 9	*AUTOMATIC TRANSMISSION–Change fluid and filter
SECTION B – SAFETY MAINTENANCE		
Every 12 months or 9,000 miles (14 400 km)	B- 1	OWNER SAFETY CHECKS–See Explanation of Maintenance Schedule
	B- 2	TIRES, WHEEL AND DISC BRAKE–Check
	B- 3	*EXHAUST SYSTEM–Check condition
	B- 4	SUSPENSION AND STEERING–Check
	B- 5	BRAKES AND POWER STEERING–Check
Every 12 months or 15,000 miles (24 000 km)	B- 6	*DRIVE BELTS–Check condition and adjustment
	B- 7	DRUM BRAKES AND PARKING BRAKE–Check
	B- 8	THROTTLE LINKAGE–Check operation
	B- 9	UNDERBODY–Flush and check condition
	B-10	BUMPERS–Check condition
SECTION C – EMISSION CONTROL MAINTENANCE		
Every 24,000 miles (38 400 km)	C- 1	FUEL FILTER–Replace
Every 6,000 miles (9 600 km)	C- 2	CRANKCASE VENTILATION SYSTEM–Service
At 1st 3,000 miles (4 800 km)–then every 30,000 miles (48 000 km)	C- 3	ENGINE IDLE SPEED–Adjust
Every 30,000 miles (48 000 km)	C- 4	AIR CLEANER ELEMENT–Replace

• Also a Safety Service
* Also an Emission Control Service

** See Chart (Fig. 0B-1) for engines that apply to this Schedule

Fig. 0B-5–Complete Maintenance – Schedule III

helpful under certain conditions. For example, if higher detergency is required to reduce varnish and sludge deposits, a thoroughly tested and approved super engine oil supplement or equivalent is recommended.

A-4. ENGINE OIL FILTER*—Replace at the first oil change and every other oil change thereafter, if mileage (7,500 miles – 12 000 km) is the determining factor. If time (12 months) is the determining factor, then change oil filter with every oil change.

A-5. TIRES—To equalize wear, rotate tires as illustrated in Figs. 0B-7 and 0B-8. Adjust tire pressures as shown on tire placard on left front door edge (glove box door on some models). Radial tires should be rotated at first 7,500 miles (12 000 km) and then at least every 15,000 miles (24 000 km) thereafter. Bias-belted tires should be rotated every 7,500 miles (12 000 km). In addition to these rotation schedules, both bias-belted and radial tires should be rotated whenever uneven tire wear is noticed.

WHEEL LUG NUT TORQUE

STARFIRE, OMEGA & CUTLASS	80 FT. LBS.
88 W/LD5, LV8, L34 or LF9	80 FT. LBS.
88 W/L80, CUSTOM CRUISER & 98 . .	100 FT. LBS.
TORONADO	130 FT. LBS.

A-6. REAR AXLE OR FINAL DRIVE—Change lubricant at first 7,500 miles (12 000 km) on limited slip type axles and when pulling a trailer, each 7,500 miles (12 000 km). Change lubricant every 15,000 miles (24 000 km) on all type rear axles or final drives when using car to pull a trailer.

It is recommended the car be driven at least 500 miles prior to hauling a trailer below a gross weight of 2,000 lbs. and 1,000 miles for trailers in excess of 2,000 lbs. gross weight.

Use of other than the above mentioned type of lubricant in the limited slip differential may cause chatter. If the wrong type of lubricant is used in the limited slip, it will require draining the differential and installing the recommended lubricant. It may be necessary to drive limited slip equipped cars for distances of 50 miles or more to allow the new lubricant to work through the units before the chatter will disappear.

Always clean dirt from around plug opening before removing the filler plug.

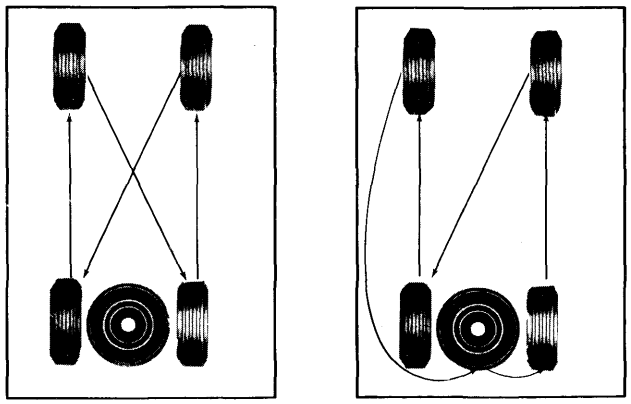

Fig. 0B-7—Tire Rotation (Belted-Bias Tires)

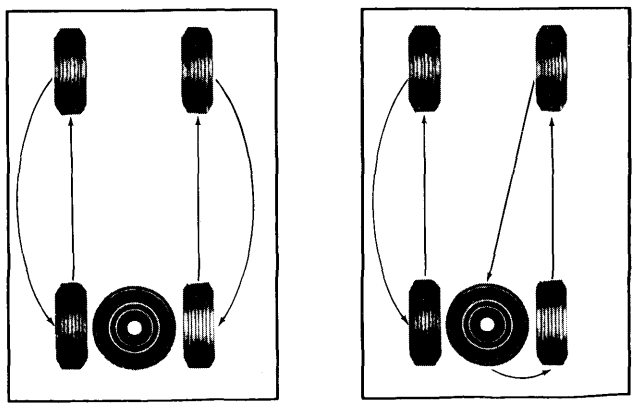

Fig. 0B-8—Tire Rotation (Radial Tires)

A-7. COOLING SYSTEM*—At 12-month or 15,000 mile (24 000 km) intervals, wash radiator cap and filler neck with clean water, pressure test system and radiator cap for proper pressure holding capacity, tighten hose clamps and inspect condition of all cooling and heater hoses. Replace hoses if checked, swollen or otherwise deteriorated. Clean exterior of radiator core and air conditioning condenser. Every 24 months or 30,000 miles (48 000 km), drain, flush and refill the cooling system with a new coolant solution.

Coolant level should be checked visually at the see-through coolant reservoir at each engine oil change, while the engine is at normal operating temperature. When level drops to "ADD" mark at normal operating temperature, add one half ethylene glycol and one half water to reservoir (not at radiator cap) to bring to mark. (Level is OK if above "ADD".) Under some conditions, the level may be observed below the "ADD" mark on the reservoir when the system cools and is below normal operating temperature.

A-8. WHEEL BEARINGS—Clean and repack front wheel bearings (rear on Toronado) with high melting point wheel bearing Lubricant 1051344 or equivalent. Add 1 ounce of lubricant to the dust cover on Toronado.

NORMAL SERVICE—Repack front wheel bearings (rear on Toronado) at each brake relining or 30,000 miles (48 000 km), whichever comes first.

SEVERE SERVICE—Repack front wheel bearings (rear on Toronado) at each brake relining or 15,000 miles (24 000 km), whichever comes first.

SCHEDULE II

A-9. FINAL DRIVE AXLE BOOTS AND OUTPUT SHAFT SEALS (Toronado)—Check for damaged, torn or leaking boots on drive axles and for leaking output shaft seal. Replace defective parts as necessary.

SCHEDULE II – A-10;
SCHEDULE I – A-9

MANUAL STEERING GEAR—Check for seal leakage around the pitman shaft and housing. If leakage is evident (solid grease oozing out - not just oily film), it should be corrected immediately.

SCHEDULE II – A-11;
SCHEDULE I – A-10

CLUTCH CROSS SHAFT—At 30,000 miles (48 000 km), remove plug in cross shaft, install lube fitting and lube with a water resistant E.P. Chassis lubricant that meets GM specification 6031-M or equivalent.

SCHEDULE II – A-12;
SCHEDULE I – A-11

AUTOMATIC TRANSMISSION FLUID*–Under normal driving conditions, change the transmission fluid and service the sump filter every 60,000 miles (96 000 km). Under unusual conditions such as constant driving in heavy city traffic, trailer pulling, and commercial applications, services should be performed at 15,000 mile (24 000 km) intervals. See Section 7 for checking procedure.

SECTION B- SAFETY

MAINTENANCE

SCHEDULE I SCHEDULE II

B-1. OWNER SAFETY CHECKS–The maintenance folder in the glove box lists several items the owner should check and have repaired if not correct.

B-2. TIRES, WHEELS AND DISC BRAKES–Check disc brake pads for wear and surface condition of rotors while wheels are removed during tire rotation (See Item A-5). Check tires for excessive wear or damage. Make certain wheels are not bent or cracked and that wheel nuts have been tightened to the torque value shown in Fig. 0B-2.

B-3. EXHAUST SYSTEM*–Check complete exhaust system including Catalytic Converter and nearby body areas and trunk lid, hatchback or tailgate for broken, damaged, missing or mispositioned parts, open seams, holes, loose connections or other deterioration which could permit exhaust fumes to seep into the trunk or passenger compartment or cause a heat buildup in the floor pan. Dust or water in the trunk may be an indication of a problem in one of these areas. Any necessary corrections should be made immediately. To help continue integrity, exhaust system pipes and resonators rearward of the muffler must be replaced whenever a new muffler is installed.

B-4. SUSPENSION AND STEERING–Check for damaged, loose or missing parts, or parts showing visible signs of excessive wear or lack of lubrication in front and rear suspension and steering system. Questionable parts should be replaced without delay.

B-5. BRAKES AND POWER STEERING–Check lines and hoses for proper attachment, binding, leaks, cracks, chafing, deterioration, etc. Any questionable parts noted should be replaced or repaired immediately. When abrasion or wear is evident on lines or hoses, the cause must be corrected.

B-6. ENGINE DRIVE BELTS*–Check belts driving fan, A.I.R. pump, generator, power steering pump and air conditioning compressor for cracks, fraying, wear and tension. Adjust or replace as necessary. (Fig. 0B-9)

B-7. DRUM BRAKES AND PARKING BRAKE–(See Item B-2 for disc brake check.) Check drum brake linings for wear or cracks and other internal brake components at each wheel (drums, wheel cylinders, etc.).

BELT TENSION

	5/16" WIDE	3/8" WIDE	15/32" WIDE
NEW BELT	80 Lbs. Max. 350 N Max	150 Lbs. Max. 650 N Max.	165 Lbs. Max. 750 N Max.
USED BELT	50 Lbs. Min. 200 N Min.	70 Lbs. Min. 300 N Min.	90 Lbs. Min. 400 N Min.
USED COGGED BELT		60 Lbs. Min. 250 N Min.	

Fig. 0B-9–Belt Tension Chart

Parking brake adjustment also should be checked whenever drum brake linings are checked.

(NOTE: More frequent checks should be made if driving conditions and habits result in frequent brake application.)

B-8. THROTTLE LINKAGE–Check for damaged or missing parts, interference or binding. Any deficiencies should be corrected without delay.

B-9. UNDERBODY–Corrosive materials used for ice and snow removal and dust control can accumulate on the underbody. If allowed to remain, these materials can result in accelerated rusting and deterioration of underbody components such as: fuel lines, frame, floor pan, exhaust system, etc. At least once each year, preferable after a winter's exposure, these corrosive materials should be removed by flushing the underbody with plain water. Particular attention should be given to cleaning out those areas where mud and other foreign materials collect.

B-10. BUMPERS–Check the front and rear bumper systems at 12-month/15,000-mile (24 000 km) intervals to be sure that impact protection and clearance originally designed into these systems remain in a state of full readiness. They also should be checked whenever there is obvious bumper misalignment, or whenever the vehicle has been involved in a significant collision in which the bumpers were struck, even when slight or no damage to the bumper systems can be seen.

SECTION C- EMISSIONS

SCHEDULE I SCHEDULE II

SCHEDULE I – C-1;
SCHEDULE II – C-2

THERMOSTATICALLY CONTROLLED AIR CLEANER–Inspect installation to make certain that all hoses and ducts are connected and correctly installed. Also, check valve for proper operation. (See Section 6E for checking procedure.)

SCHEDULE I

C-2. CARBURETOR CHOKE AND HOSES–Check choke mechanism and vacuum break for proper operation. Any binding condition which may have developed due to petroleum gum formation on the choke shaft or from damage should be corrected. Check carburetor choke hoses for proper connection, cracking, abrasion or deterioration and correct or replace as necessary.

SCHEDULE II

C-1. CARBURETOR CHOKE AND HOSES–Check choke mechanism and vacuum break for proper operation. Any binding condition which may have developed due to petroleum gum formation on the choke shaft or from damage should be corrected. Check carburetor choke hoses for proper connection, cracking, abrasion or deterioration and correct or replace as necessary. Check operation at 6 months or 7,500 miles (12 000 km), 24 months or 30,000 miles (48 000 km), and every 12 months or 15,000 miles (24 000 km) thereafter.

SCHEDULES I AND II

C-3. ENGINE IDLE SPEED–Adjust engine idle speed accurately (following the specifications shown on the label under the hood). Adjustments must be made with test equipment known to be accurate.

C-4. EARLY FUEL EVAPORATION (EFE) SYSTEM–Check valve for proper operation. A binding condition must be corrected. Check thermal vacuum switch for proper operation. Check hoses for cracking, abrasion or deterioration. Replace parts as necessary. (Refer to Section 6E for details.)

C-5. CARBURETOR MOUNTING–At designated intervals, torque carburetor attaching bolts and/or nuts to compensate for compression of the gasket. (Fig. 0B-2)

C-6. VACUUM ADVANCE SYSTEM AND HOSES–Check system for proper operation and hoses for proper connection, cracking, abrasion or deterioration. Replace parts as necessary.

C-7. FUEL FILTER–Replace filter (in carburetor) at designated intervals or more frequently if clogged.

C-8. POSITIVE CRANKCASE VENTILATION SYSTEM (PCV)–Check the PCV system for satisfactory operation at 15,000 mile (24 000 km) intervals, and clean PCV filter. Replace the PCV valve at 30,000 mile (48 000 km) intervals and blow out PCV valve hose with compressed air. Replace deteriorated hoses.

Replace the PCV filter (if located in the air cleaner). If PCV filter is located at valve cover, clean PCV filter.

C-9. OXYGEN SENSOR CHANGE (If so equipped)–Replace oxygen sensor at designated intervals. Sensor warning flag in speedometer will be visible when oxygen sensor change is required.

SCHEDULE I – C-10;
SCHEDULE II – C-11

VACUUM DIFFERENTIAL VALVE (VDV) AND DIFFERENTIAL VACUUM DELAY AND SEPARATOR VALVE (DVDSV)–Inspect valves and all connecting hoses and lines for proper routing and secure connections. Check for cracks, abrasions and deterioration. Check entire system for proper operation. Replace defective parts as necessary.

SCHEDULE I – C-11;
SCHEDULE II – C-10

SPARK PLUG AND COIL WIRES–Clean exterior of wires; remove any evidence of corrosion on end terminals. Inspect spark plug and coil wires for evidence of checking, burning, or cracking of exterior insulation or other deterioration and tight fit at distributor cap and spark plugs. If corrsion cannot be removed or other conditions above are noted, replace wire.

SCHEDULES I AND II

C-12. IDLE STOP SOLENOID AND/OR DASHPOT–Check for proper operation. An inoperative solenoid or dashpot must be replaced.

C-13. SPARK PLUGS–Replace plugs at designated intervals with type specified in Section 6E.

C-14. TIMING AND DISTRIBUTOR CAP–Adjust ignition timing following the specifications shown on label under the hood. Also, carefully inspect the interior and exterior of the distributor cap and rotor for cracks, carbon tracking and terminal corrosion. Clean or replace as necessary.

SCHEDULE I

C-15. CARBURETOR VACUUM BREAK–Inspect vacuum break linkage for proper operation. A binding condition must be corrected. Check hoses for proper connection, cracking, abrasion or deterioration. Replace parts as necessary.

Adjust vacuum break at specified intervals following procedures and specifications as found in Section 6C.

SCHEDULE II

C-15. AIR CLEANER ELEMENT–Replace the engine air cleaner element at designated intervals. The PCV filter (on the VIN A engine) should be replaced at the same interval. Operation of car in dusty areas will necessitate more frequent replacements.

(NOTE: Do not operate the engine without the air cleaner unless temporary removal is necessary during repair or maintenance of the car. When the air cleaner is removed, backfiring can cause fire in the engine compartment.)

SCHEDULE I

C-16. EVAPORATION CONTROL SYSTEM (ECS)–Check all fuel and vapor lines and hoses for proper connections and correct routing as well as condition. Check operation of bowl vent and purge valves where applicable. Remove canister and check for cracks or damage. Replace damaged or deteriorated parts as necessary. Replace filter in lower section of canister. (See Section 6C2.)

SCHEDULE II

C-16. CARBURETOR VACUUM BREAK–Inspect vacuum break linkage for proper operation. A binding condition must be corrected. Check hoses for proper connection, cracking, abrasion or deterioration. Replace parts as necessary.

SCHEDULE I

C-17. FUEL CAP, FUEL LINES AND FUEL TA

1. Inspect the fuel tank, lines ar

damage which could cause leaks.

2. Remove fuel cap and inspect gasket for an even imprint from the filler neck, and any indications of physical damage.

3. Replace any damaged or deteriorated parts.

SCHEDULE II

C-17. EVAPORATION CONTROL SYSTEM (ECS)–Check all fuel and vapor lines and hoses for proper connections and correct routing as well as condition. Check operation of bowl vent and purge valves where applicable. Remove canister and check for cracks or damage. Replace damaged or deteriorated parts as necessary. Replace filter in lower section of canister. (See Section 6C2.)

SCHEDULE I

C-18. AIR CLEANER ELEMENT–Replace the engine air cleaner element at designated intervals. The PCV filter (on the VIN A, H, L & U engines) should be replaced at the same interval. Operation of car in dusty areas will necessitate more frequent replacements.

(NOTE: Do not operate the engine without the air cleaner, unless temporary removal is necessary during repair or maintenance of the car. When the air cleaner is removed, backfiring can cause fire in the engine compartment.)

SCHEDULE II

C-18. FUEL CAP, FUEL LINES AND FUEL TANK–

1. Inspect the fuel tank, lines and cap for damage which could cause leaks.

2. Remove fuel cap and inspect gasket for an even imprint from the filler neck, and any indications of physical damage.

3. Replace any damaged or deteriorated parts.

EXPLANATION OF COMPLETE DIESEL CAR MAINTENANCE SCHEDULE III

This is an explanation of each of the services listed in the complete Diesel Maintenance Schedule. Refer to Schedule III for maintenance interval. (Fig. 0B-5) Letters and numbers on the schedule and on this explanation are for easy reference.

NORMAL USE OF CAR–The maintenance instructions contained in this maintenance schedule are based on the assumption that the car will be used as designed:

1. to carry passengers and cargo within the limitations indicated on the tire placard affixed to either the edge of the driver's door or the inside of the glove box door,

2. on reasonable road surfaces within legal operating limits,

3. on a daily basis, as a general rule, for at least several miles.

Unusual operating conditions will require more frequent maintenance as specified in the respected sections included below.

SECTION A- LUBE AND GENERAL MAINTENANCE SCHEDULE III (DIESEL)

ITEM NO. AND SERVICES

A-1. ENGINE OIL*–Change every 3,000 miles (4 800 km). Use only "first line" oils which, according to the label on the can, are intended for service SE/CD.

(NOTE: Do not use engine oils labeled only SE or only CD. These oils will not give the protection and lubrication necessary for a diesel engine. Oils meant for use only in gasoline engines should never be used in a diesel engine; they may cause engine damage.)

Single viscosity grade oils (such as SAE 30) are more satisfactory than multi-viscosity grade oils (such as SAE 15W-40) for sustained high speed driving.

RECOMMENDED VISCOSITY–Fig. 0B-10 shows recommended oil viscosity for the temperature range expected before the next oil change. This will help assure good cold and hot starting. Do not use any supplemental oil additives. Engine oil additives may cause engine damage.

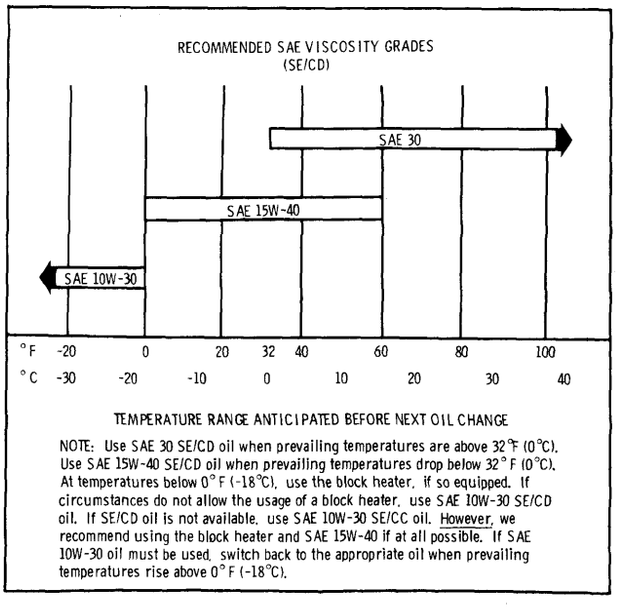

Fig. 0B-10–Oil Viscosity Chart (Diesel)

A-2. ENGINE OIL FILTER*–Replace at every oil change.

A-3. CHASSIS–Lubricate all grease fittings in front suspension and steering linkage. Lubricate transmission shift linkage, hood latch, hood and door hinges. Lubricate parking brake cable guides, underbody contact points and linkage. Lubricate door lock cylinders with WD-40 or equivalent spray lubricant.

12 month interval (or 7,500 mile maximum)	No. Fittings
Tie Rods	4
Relay Rod	2
Idler Arm	1
Upper Ball Joints	2
Lower Ball Joints	2

A-4. FLUID LEVELS–Check level of fluid in brake master cylinder●, power steering pump●, battery, engine*, axle, transmission* and windshield washer●. Engine coolant should be checked for proper level and freeze protection to at least –35° F (–37° C) or to the lowest temperature expected during the period of vehicle operation.* Proper engine coolant also provides corrosion protection.

Any significant fluid loss in any of these systems or units could mean that a malfunction is developing and corrective action should be taken immediately. A low fluid level in the brake master cylinder front reservoir could also be an indicator that the disc brake pads need replacing.

A-5. TIRES–To equalize wear, rotate tires as illustrated in Figs. 0B-7 and 0B-8. Adjust tire pressures as shown on tire placard which is located on the left front door edge (glove box door on some models). Radial tires should be rotated at first 6,000 miles (9 600 km) and then at least every 12,000 miles (19 200 km) thereafter. Bias-belted tires should be rotated every 6,000 miles (9 600 km). In addition to these rotation schedules, both bias-belted and radial tires should be rotated whenever uneven tire wear is noticed.

WHEEL LUG NUT TORQUE	
88 W/LF9	80 FT. LBS.
98 & Custom Cruiser	100 FT. LBS.

A-6. REAR AXLE–Change lubricant at first 6,000 miles (9 600 km) on limited-slip type axles and when pulling a trailer, each 15,000 miles (24 000 km). Change lubricant every 15,000 miles (24 000 km) on all standard type rear axles when using car to pull a trailer.

A-7. COOLING SYSTEM*–At 12-month or 15,000 mile (24 000 km) intervals, wash radiator cap and filler neck with clean water, pressure test system and radiator cap for proper pressure holding capacity, tighten hose clamps and inspect condition of all cooling and heater hoses. Replace hoses if checked, swollen or otherwise deteriorated.

Also each 12 months or 15,000 miles (24 000 km), clean exterior of radiator core and air conditioning condenser. Every 24 months or 30,000 miles (48 000 km) drain, flush, and refill the cooling system with a new coolant solution.

Coolant level should be checked visually at the see-through coolant reservoir at each engine oil change, while the engine is at normal operating temperature. When level drops to "ADD" mark at normal operating temperature, add one half ethylene glycol and one half water to reservoir (not at radiator cap) to bring to mark. (Level is OK if above "ADD".) Under some conditions, the level may be observed below the "ADD" mark on the reservoir when the system cools and is below normal operating temperature.

A-8. WHEEL BEARINGS–Clean and repack front wheel bearings with a lubricant as specified in the "Recommended Fluids and Lubricants" chart. (Fig. 0B-2)

NORMAL SERVICE–Repack front wheel bearings at each brake relining or 30,000 miles (48 000 km), whichever comes first.

SEVERE SERVICE–Repack front wheel bearings at each brake relining or 15,000 miles (24 000 km), whichever comes first.

A-9. AUTOMATIC TRANSMISSION FLUID*–Under normal driving conditions, change the transmission fluid and service the sump filter every 60,000 miles (96 000 km). Under unusual conditions such as constant driving in heavy city traffic, trailer pulling and commercial applications, these services should be performed at 15,000 mile (24 000 km) intervals. See Section 7 for checking procedure.

SECTION B-
SAFETY MAINTENANCE
SCHEDULE III (DIESEL)

B-1. OWNER SAFETY CHECKS–The maintenance folder in the glove box lists several items the owner should check and have repaired if not correct.

B-2. TIRES, WHEELS AND DISC BRAKES–Check disc brake pads for wear and surface condition of rotors while wheels are removed during tire rotation (See Item A-5). Check tires for excessive wear or damage. Make certain wheels are not bent or cracked and that wheel nuts have been tightened to the torque value shown in Fig. 0B-2.

B-3. EXHAUST SYSTEM*–Check complete exhaust system and nearby body areas and trunk lid or tailgate for broken, damaged, missing or mispositioned parts, open seams, holes, loose connections or other deterioration which could permit exhaust fumes to seep into the trunk or passenger compartment or cause a heat buildup in the floor pan. Dust or water in the trunk may be an indication of a problem in one of these areas. Any necessary corrections should be made immediately. To help continue integrity, exhaust system pipes and resonators rearward of the muffler must be replaced whenever a new muffler is installed.

B-4. SUSPENSION AND STEERING–Check for damaged, loose or missing parts, or parts showing visible signs of excessive wear or lack of lubrication in front and rear suspension and steering system. Questionable parts noted should be replaced without delay.

B-5. BRAKES AND POWER STEERING–Check lines and hoses for proper attachment, binding, leaks, cracks, chafing, deterioration, etc. Any questionable parts noted should be replaced or repaired immediately. When abrasion or wear is evident on lines or hoses, the cause must be corrected.

B-6. ENGINE DRIVE BELTS*—Check belts driving fan, generator, power steering pump and air conditioning compressor for cracks, fraying, wear and tension. Adjust or replace as necessary. (Fig. 0B-9)

B-7. DRUM BRAKES AND PARKING BRAKE—(See Item B-2 for disc brake check.) Check drum brake linings for wear or cracks and other internal brake components at each wheel (drums, wheel cylinders, etc.) Parking brake adjustment also should be checked whenever drum brake linings are checked.

(NOTE: More frequent checks should be made if driving conditions and habits result in frequent brake application.)

B-8. THROTTLE LINKAGE—Check for damaged or missing parts, interference or binding. Any deficiencies should be corrected without delay.

B-9. UNDERBODY—Corrosive materials used for ice and snow removal and dust control can accumulate on the underbody. If allowed to remain, these materials can result in accelerated rusting and deterioration of underbody components such as: fuel lines, frame, floor pan, exhaust system, etc. At least once each year, preferable after winter's exposure, these corrosive materials should be removed by flushing the underbody with plain water. Particular attention should be given to cleaning out those areas where mud and other foreign materials collect.

B-10. BUMPERS—Check the front and rear bumper systems at 12-month, 15,000 mile intervals to be sure that impact protection and clearance originally designed into these systems remain in a state of full readiness. They also should be checked whenever there is obvious bumper misalignment, or whenever the vehicle has been involved in a significant collision in which the bumpers were struck, even when slight or no damage to the bumper system can be seen.

SECTION C- EMISSIONS SCHEDULE III (DIESEL)

C-1. FUEL FILTER—Replace fuel filter (located at the top rear of engine) at designated intervals or more frequently if clogged.

C-2. CRANKCASE VENTILATION SYSTEM—Check breather cap and valve assembly and ventilation filter assemblies (both valve covers) each 6,000 miles (9 600 km).

Replace breather cap and valve assembly and flow control valve each 30,000 miles (48 000 km).

Insepct rubber fittings and replace as required, and clean tubes each 30,000 miles (48 000 km).

C-3. ENGINE IDLE SPEED—Adjust engine idle speed accurately (following specifications shown on label under the hood). Adjustments must be made with test equipment known to be accurate.

C-4. AIR CLEANER ELEMENT—Replace the engine air cleaner element at designated intervals. Operation of vehicle in dusty areas will necessitate more frequent replacements.

BODY LUBRICATION POINTS

HOOD LATCH

At every oil change interval, lubricate hood latch assembly and hood hinge assembly as follows:

1. Wipe off any accumulation of dirt or contamination on latch parts.
2. Apply engine oil to latch and latch locking plate.
3. Apply light engine oil to all pivot points in release mechanism, as well as primary and secondary latch mechanisms.
4. Lubricate hood hinges with engine oil.
5. Make hood hinge and latch mechanism functional check to assure the assembly is working correctly.

DOOR LOCK CYLINDERS

Use WD-40 or equivalent spray lubricant as necessary for free operation.

GAS TANK FILLER DOOR HINGE

Clean area of dirt and old lubricant. Apply a few drops of engine oil to friction points of door hinge. Work door several times and wipe off excess lubricant.

INSTRUMENT PANEL COMPARTMENT DOOR HINGE

Wipe off dirt and apply a sparing amount of engine oil to hinge frictional points. Operate door several times and wipe off excess lubricant.

DOOR LOCK FORK BOLT

Wipe off dirt and apply a thin coat of stick-type lubricant to top surface of lock bolt striker teeth indicated in Fig. 0B-11. After lubrication, close door several times and remove excess lubricant along the side edge of teeth.

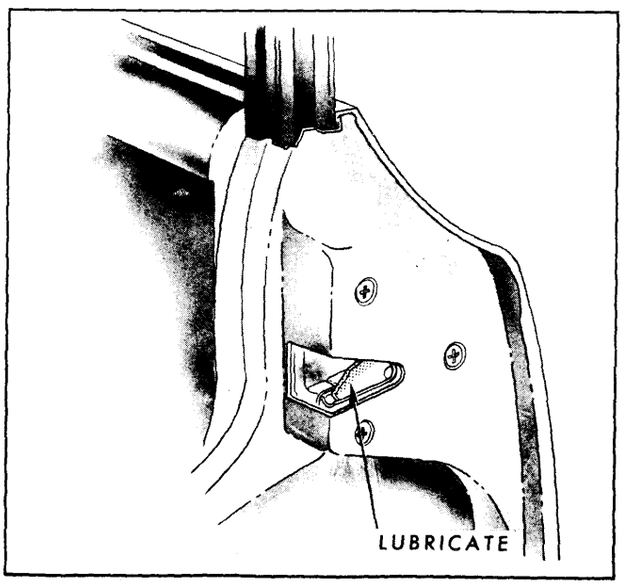

Fig. 0B-11—Door Lock Fork Bolt

FRONT DOOR HINGE ASSEMBLY

Wipe off dirt and apply a thin coat of engine oil as indicated in Fig. 0B-12. Open and close door several times to insure that the oil has worked in effectively.

(NOTE: It is important that the contact surfaces of the detent roller and detent lever remain free of lubricant.

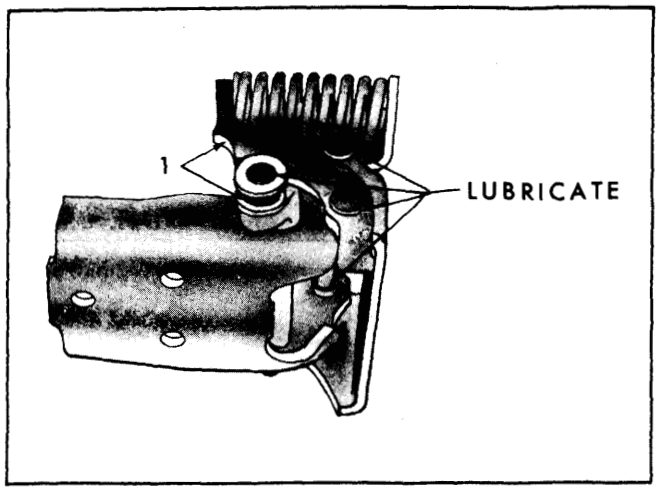

Fig. 0B-12–Front Door Hinge

Lubrication at these points indicated 1 in Fig. 0B-12, would result in a sliding action instead of the desired rolling action.)

REAR DOOR HINGE ASSEMBLY

Wipe off dirt and apply engine oil as indicated in Fig. 0B-13. Open and close door several times to insure that the oil has worked in effectively.

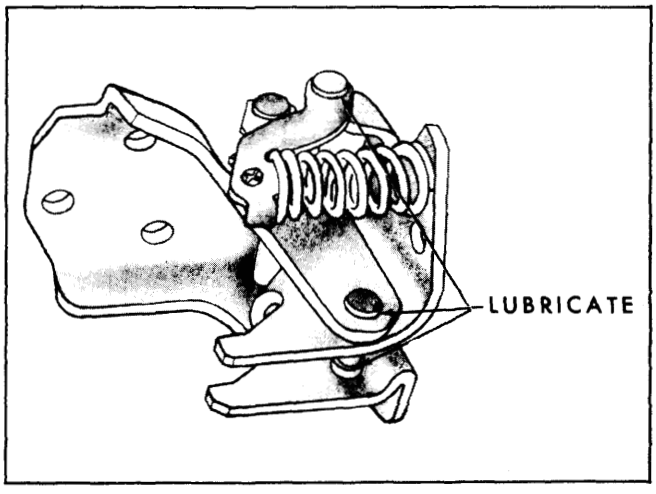

Fig. 0B-13–Rear Door Hinge

DOOR JAMB SWITCH

Apply a thin coat of Lubriplate or equivalent to end surface of switch plunger.

REAR COMPARTMENT LID & LIFT GATE LOCKS

Wipe off dirt and apply engine oil to the contact surface of the lock bolt. (Fig. 0B-14) On lift gate locks, use same lubricant on the bolt at the striker contact areas. Actuate the lock mechanism several times and then remove excess lubricant.

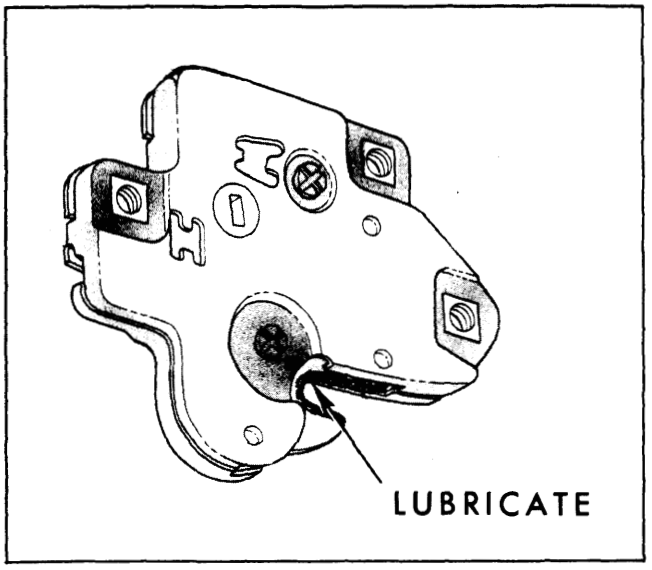

Fig. 0B-14–Rear Compartment Lock

LIFT GATE TORQUE RODS

Torque rods and hold open supports are to be lubricated at contact areas with engine oil at car lubrication interval.

FRONT SEAT ADJUSTERS

Lubricate the front seat adjuster tracks with engine oil.

BODY RUBBER PARTS

Door, hood and rear compartment rubber weatherstrips may be kept pliable and quiet by the application of a light coat of silicone lubricant or equivalent.

FLOOR HOIST LIFT POINTS

CAUTION: When jacking or lifting car from frame side rails, be certain lift pads do not contact catalytic converter as damage to converter will result.

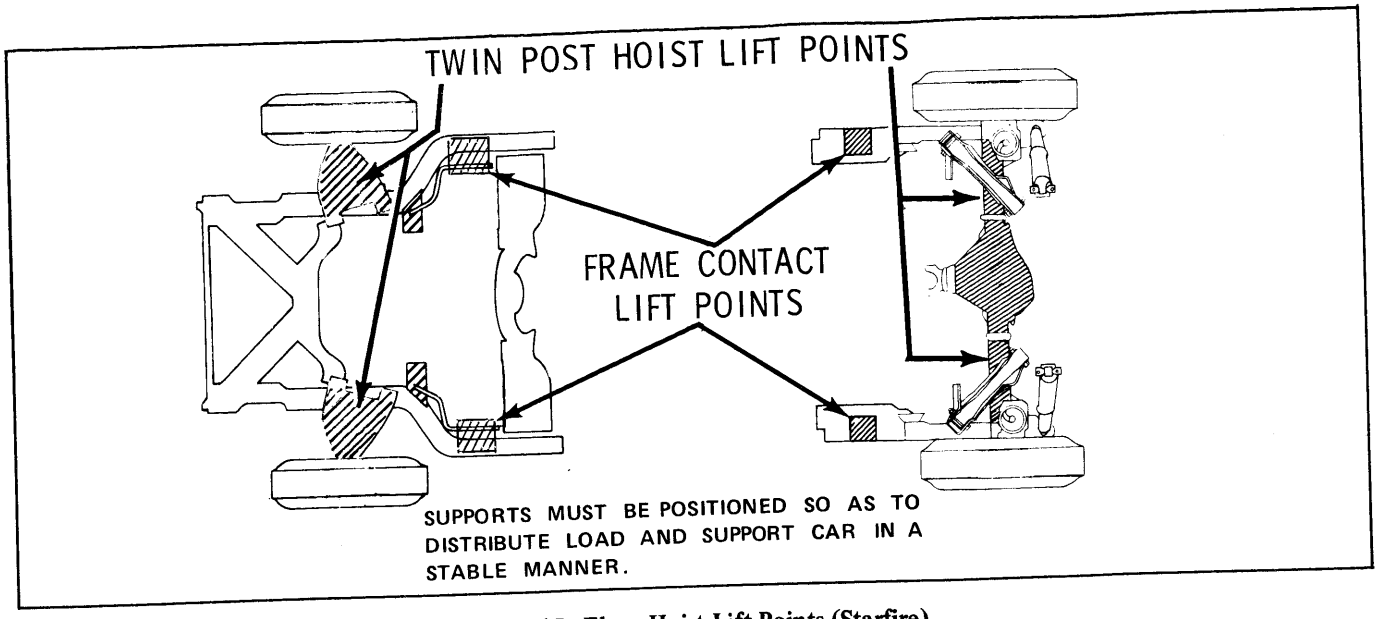

Fig. 0B-15–Floor Hoist Lift Points (Starfire)

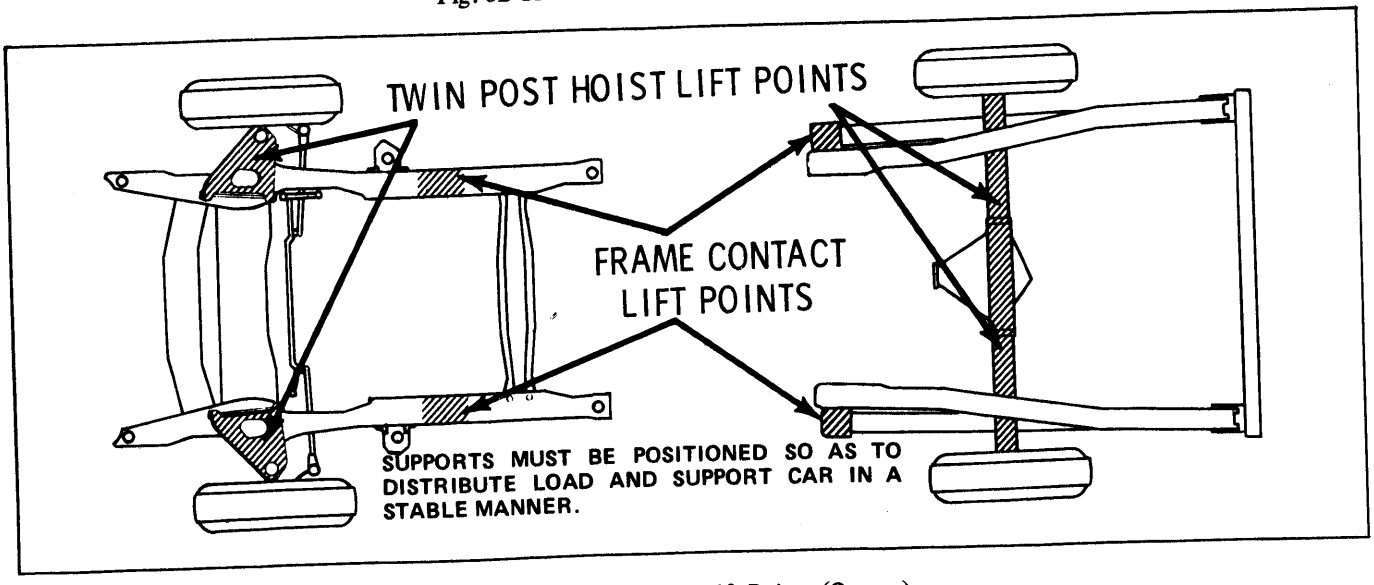

Fig. 0B-16–Floor Hoist Lift Points (Omega)

If it is necessary to use any lifting device other than the original equipment jack, such as a hydraulic, scissors or floor jack, or a service station or dealer hoist, see illustrations above for acceptable lifting points. Lifting should only be done at the positions indicated to prevent possible damage to the car.

CAUTION: Failure to follow the procedure outlined above may result in unsatisfactory car performance, or a durability failure which may result in loss of control of the car.

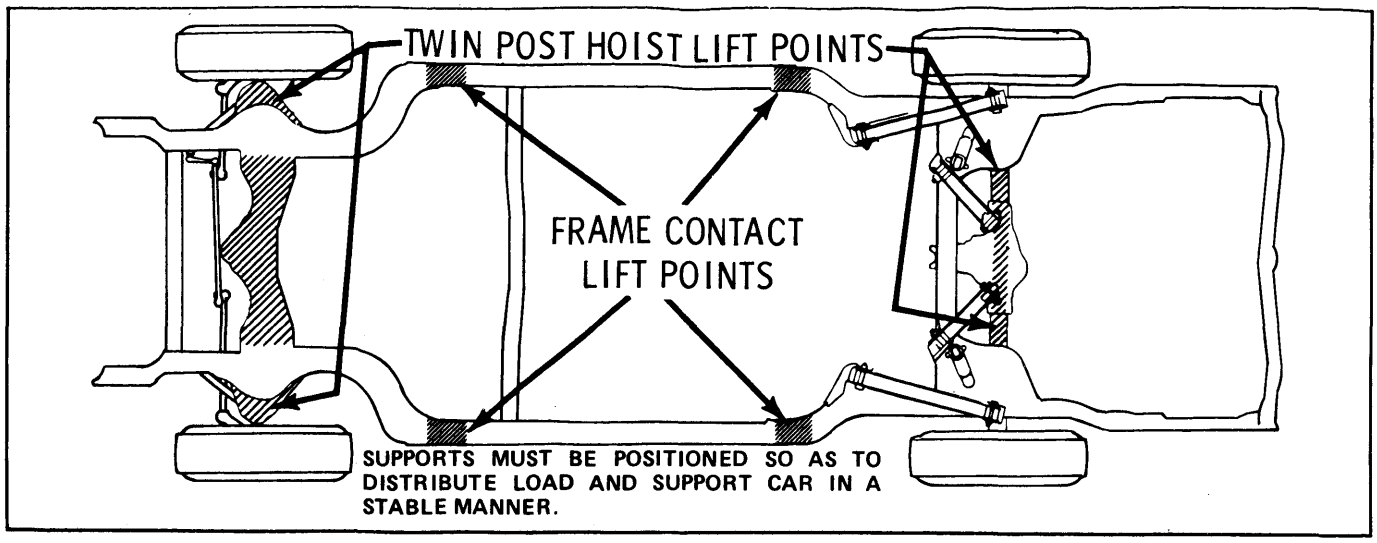

Fig. 0B-17–Floor Hoist Lift Points (Cutlass, 88, 98)

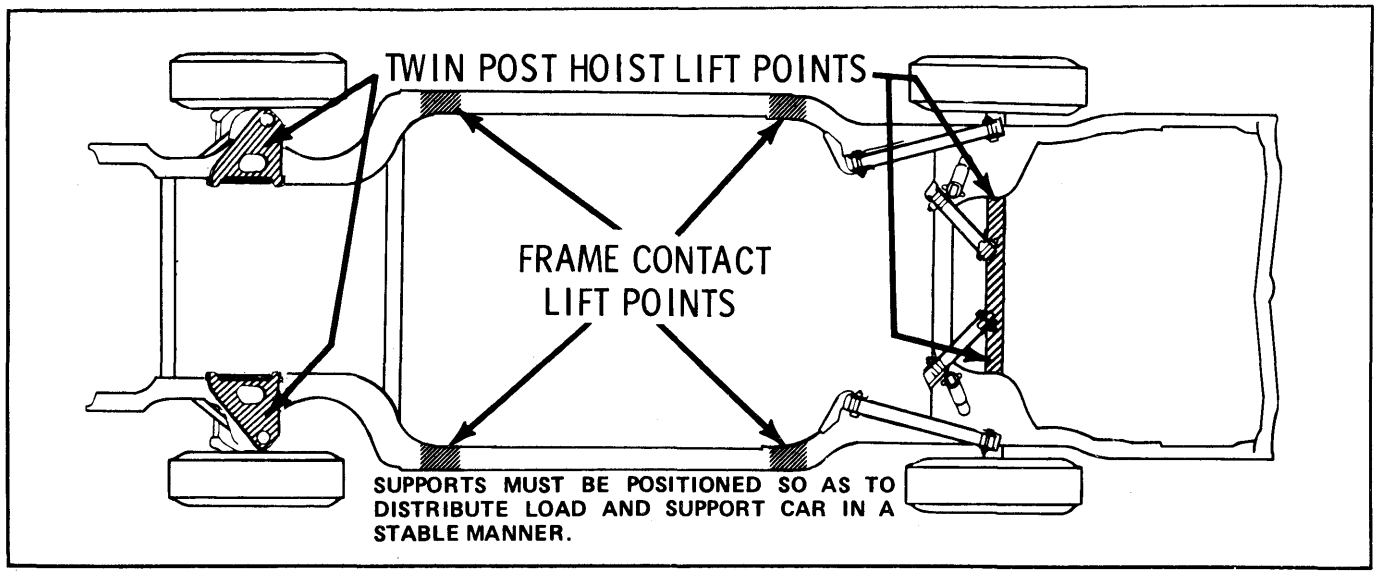

Fig. 0B-18–Floor Hoist Lift Points (Toronado)

If it is necessary to use any lifting device other than the original equipment jack, such as a hydraulic, scissors or floor jack, or a service station or dealer hoist, see illustrations above for acceptable lifting points. Lifting should only be done at the positions indicated to prevent possible damage to the car.

CAUTION: Failure to follow the procedure outlined above may result in unsatisfactory car performance, or a durability failure which may result in loss of control of the car.

CAPACITIES

SERIES	ENGINE COOLING SYSTEM	METRIC LITRES	U.S. QUARTS	IMPERIAL QUARTS
STARFIRE	**2.5 LITRE (151) VIN V & VIN 1**			
	Heater Only	10-1/2	11	9-1/4
	Heater and A/C	11	11-1/2	9-1/2
	3.8 LITRE (231) VIN A			
	Heater Only	11	11-3/4	9-3/4
	Heater and A/C	11-1/2	12-1/4	10-1/4
	5.0 LITRE (305) VIN U			
	Heater Only	15-1/4	16-1/4	13-1/2
	Heater and A/C	15-1/4	16-1/4	13-1/2
OMEGA	**3.8 LITRE (231) VIN A**			
	Heater, Heater and A/C or Y40	12	12-3/4	10-1/2
	5.0 LITRE (305) VIN U			
	Heater Only	15	15-3/4	13
	Heater and A/C	15-1/4	16	13-1/4
	High Capacity Cooling - V01	15-3/4	16-3/4	14
	5.7 LITRE (350) VIN L			
	Heater Only	15-1/4	16	13-1/4
	Heater and A/C or V01	15-3/4	16-3/4	14
CUTLASS	**3.8 LITRE (231) VIN A**			
	Heater, Htr. & A/C, V02 or Y72	11-1/4	12	10
	4.3 LITRE (260) VIN F			
	Heater or Heater and A/C	15-1/4	16-1/4	13-1/2
	High Capacity V02 or Trailer Towing Y72	16	16-3/4	14
	5.0 LITRE (305) VIN U & VIN H			
	Heater or Heater and A/C	14-3/4	15-1/2	13
	High Capacity V02 or Trailer Towing Y72	15-1/2	16-1/4	13-1/2
	5.7 LITRE (350) VIN L			
	Heater Only	14-3/4	15-1/2	13
	Heater and A/C or Y72	15-1/2	16-1/4	13-1/2
88–98	**3.8 LITRE (231) VIN A**			
	Heater, Htr. & A/C or V02	11-1/2	12-1/4	10-1/4
	4.3 LITRE (260) VIN F			
	Heater or Heater and A/C	15-1/2	16-1/4	13-1/2
	High Capacity - V02	16-1/4	17-1/4	14-1/2
	Trailer Towing - Y72	16	17	14-1/4
	5.7 LITRE (350) VIN R			
	Heater or Heater and A/C	13-3/4	14-1/2	12
	V02 or Y72	14-1/2	15-1/2	13
	6.6 LITRE (403) VIN K			
	Heater Only	15	15-3/4	13-1/4
	Heater and A/C, V02 or Y72	15-3/4	16-1/2	13-3/4
	5.7 LITRE (350) VIN N			
	Heater, Heater and A/C or Y72	17	18	15
TORONADO	**6.6 LITRE (403) VIN K**			
	Heater and A/C or V02	16-1/2	17-1/2	14-1/2
	Trailer Towing - Y72	16-1/4	17-1/4	14-1/4

CAPACITIES (Cont'd)

	METRIC MEASURE	U.S. MEASURE	IMPERIAL MEASURE
DIFFERENTIAL	**LITRES**	**PTS.**	**PTS.**
7-1/2" Ring Gear	1-3/4	3-1/2	3
8-1/2" Ring Gear	2	4-1/4	3-1/2
8-3/4" Ring Gear	2	4-1/4	3-1/2
Final Drive (Toronado)	2	4	3-1/2
ENGINE CRANKCASE	**LITRES**	**QTS.**	**QTS.**
Drain and Refill ·			
(Exc. Toronado, Diesel and 2.5 Litre (151)	3-3/4	4	3-1/4
Toronado	4-3/4	5	4-1/4
Diesel (Includes Filter)	6-1/2	7	5-3/4
2.5 Litre (151)	2-3/4	3	2-1/2
When Changing Filter – Add	1	1	3/4
FUEL TANK	**LITRES**	**GALS.**	**GALS.**
Starfire	70	18-1/2	15-1/2
Omega	79	20-3/4	17-1/2
Cutlass	68	18	15
Cutlass Cruiser	69	18-1/4	15-1/4
88 (Sedan with L-34 & Coupe with California L-34)	79	21	17-1/2
88 (Exc. Above) and 98	96	25-1/4	21
88 and 98 Diesel	103	27-1/4	22-3/4
Custom Cruiser (& with Diesel)	83	22	18-1/4
Toronado	98	26	21-3/4
*** TRANSMISSION (AUTOMATIC)**	**LITRES**	**QTS.**	**QTS.**
* 180 Automatic Transmission			
Drain and Refill	2-3/4	3	2-1/2
After Complete Overhaul	4-1/2	5	4-1/4
* Turbo Hydra-Matic 200			
Drain and Refill	2-3/4	3	2-1/2
After Complete Overhaul	8-1/2	9	7-1/2
* Turbo Hydra-Matic 350			
Drain and Refill	2-3/4	3	2-1/2
After Complete Overhaul	9-1/2	10	8-1/4
* Turbo Hydra-Matic 400			
Drain and Refill	2-3/4	3	2-1/2
After Complete Overhaul	9-1/2	10	8-1/4
* Turbo Hydra-Matic 425			
Drain and Refill	3-3/4	4	3-1/4
After Complete Overhaul	11-1/4	12	10
TRANSMISSION (MANUAL)	**LITRES**	**PTS.**	**PTS.**
3-Speed	1-3/4	3-1/2	3
4-Speed	1-1/4	2-1/2	2
• 5-Speed	1-3/4	3-1/2	3
POWER STEERING	**LITRES**	**QTS.**	**QTS.**
Pump Only (Starfire, Omega and Cutlass)	1/2	1/2	1/2
Complete System	1	1	3/4
Pump Only (88, 98 and Toronado)	1/2	1/2	1/2
Complete System (Exc. 88-98 Diesel)	1-1/4	1-1/4	3/4
Complete System (88-98 Diesel)	1-5/8	1-3/4	1-1/2

* Initial Fill Capacity–See Section 7 for checking procedure. Use final quart to bring level to mark on dipstick.

• For Towing, add 1-1/2 Litres (1-2/3 Qts.) DEXRON®-II D through the shifter boot.